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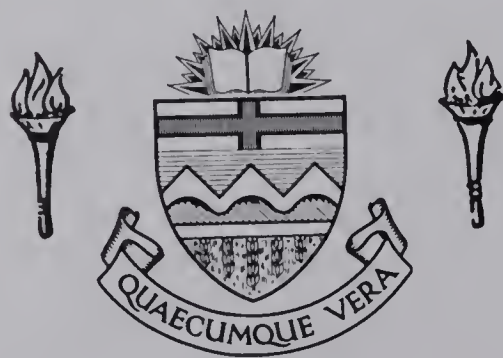
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THE ATTITUDES TOWARD AND INTERESTS IN  
PHYSICAL ACTIVITY OF  
WESTERN AUSTRALIAN URBAN SECONDARY SCHOOL  
STUDENTS

by



KEVIN A COLLINS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Attitudes Toward and Interests in Physical Activity of Western Australian Secondary School Students," submitted by Kevin A. Collins in partial fulfilment of the requirements for the degree of Master of Arts.



## ABSTRACT

The purpose of this study was to determine and to attempt an explanation for the current attitudes toward, and interests in physical activity held by secondary school children in Western Australia.

A sample population of one thousand secondary school students was drawn from schools which would reflect differences in economic background. Those students selected then completed the three inventories which had been developed by Kenyon and which would reflect their attitudes and interests towards physical activity. An attempt was also made to determine the influence of such sociological factors as economic background, educational achievement of the parent, and the country of origin of the parent upon these attitudes.

The data was transferred to IBM cards and subjected to factorial analyses, Hoyt reliabilities and frequency distributions.

All four sub-populations indicated favourable attitudes toward physical activity as a social experience, as aesthetic experience, as catharsis, as the pursuit of vertigo and for health and fitness, although differences, statistically significant in some cases, did exist between the attitudes held by each of the sub-populations. The





attitudes expressed toward physical activity as an ascetic experience and as games of chance were less favourable and often a review of the results it was suggested that their selection as major sub-domains of physical activity be re-examined. Girls tended to express more favourable attitudes toward physical activity as an aesthetic experience than did boys, while the latter expressed a much more favourable attitude toward activities which were thrilling but involved the participant in some risk.

Statistically significant differences were found in the attitudes held by boys and girls in grades 9 and 11 from high and low-economic backgrounds. Girls appeared to be more affected by these differences than did the boys. The influence of educational achievement of parents on the attitudes of the students towards participation in physical activity was found to be significant. The country of origin of the parent did not appear to have any influence on the attitude of the students. Interest in various types of physical activity was reflected by television viewing, the reading of pertinent articles in newspapers, books and magazines and in the high percentage who attended sporting activities as spectators and as participants.



Arising from the results of this study several major conclusions were drawn.

1. The attitudes of the students towards participation in physical activity were generally favourable.
2. Economic background and the educational achievement of the parent did have an influence on the attitudes of the students towards physical activity.
3. The semantic differential as a measuring instrument appeared to be reasonably successful in differentiating between attitudes and had a moderately high reliability.
4. The participation in physical activity by the student was influenced by his friends.



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## CHAPTER I

### INTRODUCTION

The characterization and explanation of social values and attitudes have been of interest to workers in many fields over a long period. Attempts to systematically conceptualize, quantify and assess values held for a given cultural phenomenon were hindered by the lack of efficient means of treating large quantities of data. As computer techniques for mathematical analyses improved, as well as the development of new mathematical models such as those for psychological scaling (19), and behaviour simulation (35), the social scientist or psychometrician were permitted to undertake studies that previously were not feasible. One of the more promising areas of social psychological analysis is that of attitudes.

The study of attitude toward a psychological object requires the formulation of appropriate constructs and the development of adequate means for their measurement. In other words, how can the domain in question be arrived at, and then how can it be translated into operational terms?

Research literature concerned with the subject of attitude toward physical activity showed that investigators interested in determining values held for physical activity used a variety of techniques, from questionnaires (47) to psychological scaling procedures (2, 43, 55). First,



sufficient attention had not been paid to the characterization of "physical activity" in its broadest sense; up to now most of the investigations had usually limited the inquiry to a somewhat restricted domain such as "physical education", "team game competition", or "sports". Second, the instruments used were seldom based on a thorough application of appropriate test construction procedures such as item analysis. Third, where scaling procedures were used, such as in the development of instruments by Wear (55), Richardson (43), and Adams (2), there has been a failure to account for the possibility of multidimensionality of the domain in question

In an attempt to overcome such problems, Kenyon of the University of Wisconsin (24, 25, 26, 27, 28) tried to find a conceptual framework for characterizing values held for physical activity, but found that no single psychological or sociological theory emerged. As a result, Kenyon (24) developed a framework which he based partially on the theories of others, and partially on a logical analysis of the function allegedly served in contemporary society by physical activity. He selected two related objectives: (1) to generate models facilitating the characterization of attitudes towards physical activity; and (2) to construct within the context of a given model, relatively independent univocal scales for determining attitudes toward physical activity. To fulfil such objectives requires both a priori and empirical methods.





In general, a model is constructed and verbal stimuli thought to represent the components of the model are identified. The efficacy of the model and the stimuli are then tested empirically.

Over a three year period, an inventory based on a multidimensional model with seven sub-domains has been developed (26).

1. Physical Activity as a Social Experience.
2. Physical Activity as the Pursuit of Vertigo.
3. Physical Activity for Health and Fitness.
4. Physical Activity as an Aesthetic Experience.
5. Physical Activity as Catharsis.
6. Physical Activity as an Ascetic Experience.
7. Physical Activity as Games of Chance.

While this inventory developed by Kenyon has been tested in pilot projects and has been continually refined until it has reached its present stage, it has, until recently, not been utilized for a major project. Semotiuk (46), from the University of Alberta, has recently completed an attitude study of Edmonton secondary school students using this inventory. Consequently, while the major emphasis will be concentrated upon the results acquired from the questionnaires, attention will be paid to the adaptability and suitability of these questionnaires in respect to cultures outside the North American continent. It is hoped that similar questionnaires





may be administered in such countries as England, the United States of America and Australia so that a cross-cultural study may be undertaken.

### THE PROBLEM

The present problem to be investigated is:

1. to determine present attitudes toward, and interests in, physical activity of selected urban secondary school students in Perth, Western Australia, and
2. to seek an explanation for certain attitudes toward, and interests in physical activity.

### NEED FOR THE STUDY

The need for the study is based on the followings:

1. to assess present attitudes toward physical activity and to attempt to find out how these attitudes have been acquired.
2. to provide information regarding the existing attitudes and interests held by the chosen sub-population to the various institutions and groups concerned.
3. to provide information for a comparison of attitudes and interests toward physical activity held by selected populations from different countries.
4. to aid the development of a standardized test of adequate validity and reliability which could be used



to evaluate various populations.

5. to test the suitability of the inventory (which has been designed for an American culture) for use in other countries with different cultural backgrounds.

6. to test the theoretical and practical worth of the inventory; whether the information obtained will be of theoretical or practical use for physical educationists or curriculum planners.

7. to provide information to support the possible re-direction of physical activity programmes in the population groups studies.

8. to examine the suitability of the seven sub-domains as concepts for a multidimensional model of attitude evaluation.

#### DELIMITATIONS OF THE STUDY

This survey was delimited:

1. to a stratified random sample of grade 9 and 11 urban secondary school students in Perth, Western Australia,

2. in that it is governed by the instruments and the procedures used in this study,

3. in that it is dependent on the responses in the inventories reflecting the actual interests and attitudes of the population studied,



4. in that the findings of the study will be interpreted within the range of the definition of terms in the study, and

5. in that the subjects will be tested at one session.

#### DEFINITION OF TERMS

The following definitions are pertinent to this study.

Attitude: a latent, relatively stable variable reflecting both intensity and direction of feeling toward a particular object, whether it be concrete or abstract.

Physical Activity: organized gross human movement as manifested in active games, calisthenics, sports and dance.

Interest: a relatively persistent aspect of one's life style, usually providing a degree of pleasure or satisfaction. For this study, interest in physical activity will be reflected through participation in and association with sport and physical activity.

Explanation: a persistent significant association (but not necessarily causal) between attitude or interest and certain psychological, sociological, and educational variables.

Physical Activity as a Social Experience: those physical activities whose primary purpose is to provide a





medium for social intercourse, i.e., to meet new people and to perpetuate existing relationships.

Physical Activity for Health and Fitness: those physical activities which are characterized primarily by their contribution to the improvement of one's health and fitness.

Physical Activity as a Pursuit of Vertigo: those physical experiences which provide, at some risk to the participant, an element of thrill through the medium of speed, acceleration, sudden change of direction, or exposure to dangerous situations, with the participant usually remaining in control.

Physical Activity as an Aesthetic Experience: those physical activities which are often perceived as having an aesthetic value for the individual -- that is, activities that are conceived of as possessing beauty or certain artistic qualities.

Physical Activity as Catharsis: those activities which provide a release of tension precipitated by frustration through some vicarious means.

Physical Activity as an Ascetic Experience: those physical activities that are conceived of as requiring long, strenuous and often painful training and stiff competition, demanding a deferment of many gratifications.

Physical Activity as Games of Chance: those physical





activities which are perceived as games and sports where chance and luck are more important than skill in determining the winner.

Secondary School Population: the secondary school population refers to all those presently enrolled in grades 7, 8, 9, 10 and 11 in the State of Western Australia. For the purpose of this study, the sample is restricted to the grades 9 and 11 in selected State Schools in Perth, Western Australia. These schools have been selected by the Education Department of Western Australia to reflect differences in socio-economic status.



## CHAPTER II

### REVIEW OF THE LITERATURE

The literature concerning attitudes, physical activity and related concepts is quite extensive, as many investigations into these areas have been carried out in the past thirty years. In the field of attitudes alone, so much research has been done that to classify, present and discuss the resulting literature, would be a study of its own. Because of this, attitude, in this review, will only be discussed where it is related to physical activity and closely related concepts.

Where scales and questionnaires have been developed to measure these attitudes, such as those by Adams (2), Richardson (43), Wear (55), techniques developed by Thurstone and Likert have been utilized. One of the major problems has been that of demonstrating the reliability and validity of the scales. Richardson (43) used a logical-judgment consensus approach, employing people who could be considered as experts, when checking the validity of his scale. Statistical treatment of the judgments provided an objective consensus of expert opinion. Adams (2) also made use of judges, and in his statistical treatment examined validity against other tests rather than against a behavioural





criterion. Wear (55), when testing that the scales "measure what they are supposed to measure", found that a very high correlation existed between scale scores and responses to items which indicated the consistency with which certain measures of attitude were "hanging together". Concluding his comments on this aspect of testing Adams (2) states that: "it has come to be widely assumed that such scales do sample adequately the universe of content of whatever is being measured so that some generalizations about the scale are acceptable".

Indications that differences exist between attitude toward physical activity and interest in physical activity, have been found in several studies. In the area of recreation, attitudes have been studied primarily through inquiries about the individual's interests or desires, or "what he would like to do" or "knows he should do". However, the reports on what he actually does show a wide discrepancy. Examples of this may be found in Adams (1), Toogood (53), and Wylie (58). The question remains as to whether attitudes are as effective in governing action as we are prone to think. Keogh (29) came to a similar conclusion after utilizing the Wear Attitude Inventory to analyze the general attitudes toward physical education:

People may view certain outcomes as being "good for them" but may be unwilling to accept a required school program as the price to pay for the value received. The possibility also exists that people have positive attitudes



toward physical education in spite of, rather than because of, the school programs. There seems to be a conflict in the ideals to which people subscribe and the reality which they observe.

Many factors have been found to influence attitudes toward physical activity. Sluiter (48) found that previous high school experience had little effect on attitude toward Physical Education at South Dakota State College. However, Broer, et al (8) felt that past experience did have an effect on attitude: "While it is obvious that the attitude expressed by a student will be influenced by all of her past experiences, it was reasoned that the most recent physical education experience would be likely to have a strong effect."

Utilizing the Wear Physical Education Attitude Inventory to determine the difference in attitude due to exposures and experiences undertaken before entering College, Cross (13) found that those boys who had participated in many physical education classes had a more favourable attitude than those who had been in relatively few classes.

Favourable attitudes toward physical activity were indicated in the results of several other studies. George (17) found a positive favourable attitude toward physical activity among male students at the University of Oregon. Moore (39) indicated similar results from among college women. Hunter (22) obtained a mixture of favourable and unfavourable attitudes among women students at the University of Florida. Bell and Walters (5), besides finding that the





girls who entered the University of Michigan with experience in physical education in high school had a more favourable attitude toward physical activity than those who had not, pointed out that a significant relationship existed between the extent to which the instructors were interested in the student as an individual and the extent to which the student enjoyed physical education classes. Broer and Holland (9) concluded from their results that lack of success, class size as well as individual attention to students in the class, were all important factors influencing attitudes toward physical education.

School size was found to be an important factor by Cross (13). Results showed that those coming from smaller schools where they could receive more individual attention had a more favourable attitude toward physical activity. Squires (51) agreed with this concept and concluded that a better attitude toward physical education was acquired in small and medium-sized high schools where smaller and more frequent classes could be found with a closer pupil-teacher relationship. They both found that athletes had a significantly more favourable attitude than other students.

Graybeal (18) and Smith (49) found, with women and men students respectively, that freedom of choice in activities was a major contributor to the improvement of attitude.

Nemson (40) reported specific annoyances which were related to student attitude in physical education classes:



"From personal observation it was reasoned that if these factors were present, and if the physical educator could discover what they were, they might be reduced or eliminated, and thus physical education would become less of an obligation and more of a source of enjoyment and learning to a greater percentage of the group". He suggested that a way of reducing individual resentment and increasing the appeal of the programme would be by discovering and including activities that interest the students and reducing to a practical minimum the specific factors that are objectionable.

The influence of the peer group on attitudes towards physical activity was brought out by Beal (4), Lewis (31), and Squires (51). While this influence could be toward favourable or unfavourable attitudes, only the effect on unfavourable attitude was mentioned. Parental and teacher attitude and example, however, could have an influence in either direction. Both peer group and parent attitude and example may have had an influence in the study by McAfee (33) on sportsmanship attitudes. The attitudes became progressively lower as the boys moved from the sixth to the eighth grade and the influence of both groups had more effect on the individuals.

The inter-relationship of physical activity and several psychological and sociological factors was demonstrated by research in several areas. Biddulph (6) stated that athletic





achievement was a very important factor in personal and social adjustment. Blanchard (7) concluded that character and personality traits are affected by participation in physical education activities, the results being desirable rather than undesirable traits. Scott (45) had laid claims for psychological outcomes of physical activity, one of which is changing attitude:

But everyone consciously or unconsciously sees more than a physiological organism going through motor gyrations or having fun. Each recognizes that play and exercise have some effect on the behavior patterns of the person.

Cowell (12) pointed out that we socialize youth by helping them acquire social experiences, social habits, and social relationships. Our interest is in the development of the social phases of personality, attitudes, and values by means of games, sports and related activities. "In the sense that we as teachers have a part in controlling or influencing to some extent these factors in our culture, we become guardians and developers of personality by influencing the dominant attitudes and goals of that part of our culture related to games, sports and recreation in general". Keogh (30) suggested that physical activity is an emotional experience for most people, whether as participants or spectators. He stated that the generalized positive or negative 'set' which the subjects seemed to have may be based on specific determinants which are emotional in nature. The determinants





might vary from positive peer reward for successful performance to negative personal feelings of inadequacy due to lack of strength. Frank (16) as a result of his study, found that a direct relationship existed between the physical education program and selected socio - economic factors. While several conclusions were drawn by Frank (16), one in particular was relative to this study. He found that there was a direct relationship between the quality of the physical education program and the financial support available. Among the recommendations arising out of the study, Frank suggested the need for a comprehensive investigation of environmental influences and their inter-relationship with one another. This should, he felt, include such factors as population shifts, sociological background of the people involved and their economic resources.

A review of the relevant literature showed that the inter-relationship of physical activity and some sociological factors had previously been examined. As well as the factors that have been mentioned in the preceding section it was found that the relationship between participation in physical activity and age and sex had already been studied. There is some evidence that involvement, either as a participant or spectator, is inversely proportional to age (42). Lundberg, et al (32) reported thirty years ago that a larger proportion of men participated in physical activity compared to women.



More recent literature suggests that such is still the case (42).

The degree to which physical activity is a "life interest" of adults was found to be directly related to educational attainment by a survey conducted by the Opinion Research Corporation in 1957 (42) and by Ward in "A Study of the College Educated Women of America" (54) in 1956. The association between interest in physical activity and socio-economic status has been shown in different ways. Lundberg, et al (32) suggested that participation in games and sports will vary by type but not by amount when different social classes are compared. The research findings of other workers have tended to support differences in type (11, 50, 57), but have found, in addition, that participation in general is related directly to social status (42, 54). Clarke and Stone (11, 52) have suggested that, in spite of important exceptions, attendance at sporting events tends to be a middle class phenomenon. However, there is some evidence that indicated few differences exist among various classes in the incidence and type of television viewing, including presumably, sports broadcasts.

In view of the various factors which appear to influence attitudes toward and interests in physical activity, and also considering the various settings in which physical activity may be classified, Kenyon (24) attempted to construct





a model characterizing physical activity as a socio - psychological phenomenon. His work is based on two assumptions: (1) that physical activity can be reduced to more specific components (ie., a set of all physical activities can be reduced to logical sub-sets) and (2) that a meaningful basis for such a procedure is the instrumental value physical activity is perceived to have for the individual. That is, it is postulated that different classes of physical activities are perceived to provide different sources of satisfaction.

Proceeding with this approach, Kenyon (24) developed three hypothetical models, the latter being the one used for this study. In his original model six sub-domains were presented. These were: physical health, mind - body dichotomy, cooperation - competition, mental health, social intercourse, and patriotism. An inventory was constructed which was composed of statements which, it was thought, would reflect the attitudes towards each of the sub-domains. This was then administered to two groups of subjects but was found to provide little evidence of a meaningful nature.

A second inventory (25) based partly on the results of the first attempt, was constructed and again consisted of six sub-domains: physical activity as a social experience, for health and fitness, as the pursuit of vertigo, as an aesthetic experience, as a recreational experience, and as a competitive experience. Seventy-three Likert-type attitude





statements were drawn up and evaluated by judges, revised, incorporated into an inventory, and administered into 176 college men and women (25). A factor analysis of the item inter-correlation matrix indicated that while the assumption of multidimensionality was warranted, the original definitions of each of the sub-domains were still precise.

As a result, a new model was devised, incorporating the findings of the two previous models and presenting seven sub-domains for which definitions were provided for the "psychological objects" toward which attitudes were held. The seven dimensions of the model were as follows: physical activity perceived as (1) a social experience, (2) health and fitness, (3) the pursuit of vertigo, (4) an aesthetic experience, (5) catharsis, (6) an ascetic experience, and (7) as chance.

Several other measures were obtained using separate inventories. The level of self esteem score was obtained using Guttman scales developed by Rosenberg in 1965 (44). A body-esteem score was acquired through the use of a semantic differential similar to that used to assess attitude. "Need for approval" was determined using a scale developed by Crowne and Marlow in 1964 (14). Interest data (for self and peers) and certain sociological variables (including number of siblings, national origin and social class) were acquired using a separate inventory.



## CHAPTER III

### METHODS AND PROCEDURES

As the results of this study are to be used at a later date for an international study to compare attitudes toward and interest in physical activity in such countries as Canada, The United States, England and Australia, the methods and procedures followed were based on those suggested by Kenyon at the University of Wisconsin.

The subjects for this survey were selected from grade 9 and grade 11 urban secondary school students in Perth, Western Australia.

As the sample to be tested was to be a socio-economic stratified random sample, the Bureau of Statistics in Perth was contacted and asked if it could help provide such a sample. It was unable to do this but notified the Research Branch of the Western Australian Education Department. The Director stated that as Western Australian secondary (Government) schools are 'Comprehensive High Schools', they contain students from high and low socio-economic groups, but that schools 'which would reflect these groupings had been chosen'.

The Director of the Physical Education Branch was approached for permission to administer the questionnaires during physical education periods, to groups of randomly





selected students from certain schools. This permission was given.

Class lists were obtained for all grade 9 and 11 students from the six selected schools and the proportion of subjects from each school determined by the number of students in these classes in each school. From this the number of subjects for each school was determined. The subjects were then selected on a random basis using the class lists, school by school. The names of the selected students were then sent to the respective schools and a date set for the testing. The population sample, when drawn, consisted of 500 subjects from grade 9 and 500 subjects from grade 11. In addition, alternative subjects were selected, in case a subject was not available on the day of testing.

The questionnaires were administered by the Senior Master of Physical Education in each school after preliminary instruction on testing procedure and under the supervision of the Senior Master of Physical Education at Swanbourne High School, who was the co-ordinator in Perth. The completed questionnaires were then collected and returned to Alberta.

#### Test Instruments to be Used.

The investigator used three different testing instruments to obtain the data for this study. The instruments used, together with their code names, and





time required for test completion were as follows:

<u>Instrument</u>	<u>Code Name</u>	<u>Time Required</u>
1) General Information Inventory	G.I.N.	15 min.
2) Semantic Differential	B.A.T.	20 min.
3) Sociological & Psychological Variables Inventory	S.E.N.A.P.S.	15 min.
Total		50 minutes

### Test Methods and Procedures

The psychological and sociological variables and the instruments used to measure them were similar to those used by Kenyon in the Janesville pilot project (24). They are as follows:

<u>Variable</u>	<u>Measuring Procedure</u>
A. Dependent Variables	
1. Attitude Toward Physical Activity as;	1. Semantic Differential Scales (BAT)
i) social experience	
ii) for health and fitness	
iii) the pursuit of vertigo	
iv) an aesthetic experience	
v) catharsis	
vi) an ascetic experience	
vii) games of chance	
2. Interest in Physical Activity	2. See Independent Variables below.
B. Independent Variables	
1. Interest in Physical Activity	1a, b. Characterizing physical activity according to the same seven dimensions as in A1 above - a three
a) as a participant	
b) as a spectator	



Cont. -

<u>Variable</u>	<u>Measuring Procedure</u>
	position rating scale shall be provided for each <ul style="list-style-type: none"> <li>i) of great interest</li> <li>ii) of moderate interest</li> <li>iii) of little or no interest</li> </ul>
c) as a consumer of mass media addressed to sport and physical activity <ul style="list-style-type: none"> <li>i) newspapers</li> <li>ii) magazines &amp; books</li> <li>iii) television</li> </ul>	c. As in 1a and 1b, but also a general score on a five point frequency scale <ul style="list-style-type: none"> <li>i) daily</li> <li>ii) 1 - 2 per week</li> <li>iii) 1 - 2 per month</li> <li>iv) less often or never</li> </ul>
2. Psychological Factors	2a. Allport-Vernon Study of Values (GIN)
a) Personal Values and Interests	
b) Body Image	2b. Semantic differential scale total score on each dimension (BAT)
c) Self-esteem	2c. Rosenberg's self-esteem scale recode to 3-point scale (SENAPS)
3. Sociological Factors	3a. Hollingshead index based upon education and occupation of head of household. (GIN)
a) Social class background	
b) National Origin	3b. Birth place of parents (or head of household only) (GIN)
c) Group Affiliations	3ci. Family size and birth order (GIN)
i) Family	
ii) Peers	3cii. Major interests of close friends (GIN)
iii) Other	3ciii. Club affiliation (GIN)
d) Social desirability	3d. Crowne and Marlow's Need for Approval Scale (SENAPS)





Pre-arranged schedules of the students to be tested, and the testing times for the various groups were drawn up and delivered to the schools prior to the actual day of the administration of the test. Vacant rooms within the schools were used to administer the test.

Upon entering the room the subjects were informed of the purpose of the tests, and were given full instructions regarding the order of the tests together with the procedures to be followed. The subjects all began the first test at the same time. The subjects were instructed not to begin the second one until told to do so. This command was given when all the subjects had completed the first test. The same procedure was repeated for the third test.

#### STATISTICAL TREATMENT

Utilizing a code manual prepared by Kenyon (see Appendix) to convert raw scores and responses by the subjects to the test items, the data (from the GIN and SENAPS inventories) was transferred to IBM cards. The responses to the BAT semantic differential inventory were recorded on a Digitek Answer Sheet by each subject and these sheets were forwarded direct to the University of Wisconsin where they were processed through a scanning machine which automatically punched the IBM cards for each subject.

When all the data had been converted and punched onto





IBM cards there were four IBM cards for each subject, one going into each of the four decks.

Deck 1 = Attitude scores from the Semantic  
Differential (BAT)

Deck 2 = Body image scores from the Semantic  
Differential (BAT)

Deck 3 = General information on direct or vicarious  
involvement of self and peers with physical  
activity (GIN)

Deck 4 = Other Sociological and Psychological  
variables and classification of chosen  
physical activities (SENAPS)

Decks 1 and 2 were analyzed by the computer at the University of Wisconsin by a Reciprocal Averages Programme (RAVE) which had been developed for this purpose. This programme treated both the attitude and the body image data and produced a total score for each individual in each of the seven attitude sub-domains and each of the six body image sub-domains. The means, standard deviations, standard errors and Hoyt reliabilities (a test of internal consistency) were then produced for each sub-domain based on the original weightings for each test item. These were then re-weighted by the programme and new sets of means, standard deviations, standard errors and Hoyt reliabilities were calculated until the Hoyt reliabilities were maximized. In this manner,



a more accurate and reliable weighting was given for responses to the test items in each sub-domain than had arbitrarily been decided on in the beginning. Finally the programme also gave the number of subjects choosing each possible item response.

A three-way factorial analysis was then employed, the factors being grade, sex and each of the seven attitude sub-domains. A similar analysis was carried out on grade, sex and each of six body image scores. Using a smaller sample, four factors were chosen for another factorial analysis, this time including Economic Background with the other three factors of grade, sex and the seven attitude scores. This four-way analysis was repeated with Education of Parent and Country of Origin of Parent substituting for Economic Background. In order to describe the results, the sample was divided into four sub-groups: grade 9 boys, grade 9 girls, grade 11 boys and grade 11 girls. Differences within these sub-groups were examined.

The information in Deck's 3 and 4, being purely descriptive, was presented in table form showing the frequency distribution and percentages for each of the four sub-groups. With the choice and classification of sports, the results were ranked and placed in tables again showing frequency distribution and percentages.





## CHAPTER IV

### RESULTS AND DISCUSSION

#### ATTITUDE MEANS BETWEEN GRADE AND SEX

For the purposes of this study the five percent level of significance has been chosen.

The results (Table 1) showed that girls in grade 9 had a significantly more positive attitude toward physical activity, as measured by this inventory, than did boys in grade 9. Although it was not statistically significant, the boys in grade 11 did have a slightly higher mean score than did the girls in grade 11. Considering both grades, girls showed a higher attitude mean score which was statistically significant. There were no statistically significant differences between the overall means by grades but there was a more favourable attitude shown by the girls which was significant at the five percent level of confidence when the overall means by sex were compared.

TABLE I

#### COMPARISON OF ATTITUDE MEANS BETWEEN GRADE AND SEX

Grade	Boys	Girls	F	Overall Mean by Grade
9	37.68	39.79	**	38.09
11	38.61	38.08	NS	38.40
Overall Mean by Sex	37.91	38.96	NS	38.18

NS: - Not Significant

\*\*: - Significant at 5% level





# Analysis of Variance Between Sex and the Attitude Sub-domains

As shown in Table I, no statistically significant difference in attitudes existed between grades. The results of the three-way analysis of grade, sex and attitude indicated that no statistically significant interaction occurred between these factors. However, while there were no significant differences from this analysis, the means for each attitude variable held by each of the four sub-populations tested have been included in Table IV.

TABLE II

## ANALYSIS OF VARIANCE OVER BOTH GRADES BETWEEN SEX AND THE ATTITUDE SUB-DOMAINS

Variable	Boys' Means	Girls' Means	F	Average For Variables
1 Social	43.63	44.87	NS	43.95
2 Health	42.28	42.80	NS	42.41
3 Vertigo	35.87	33.38	NS	35.23
4 Aesthetic	41.64	48.35	**	43.36
5 Catharsis	42.66	45.98	**	43.51
6 Ascetic	29.43	29.29	NS	29.39
7 Chance	29.87	28.06	NS	29.41
Average for Sex	37.91	38.96	**	38.18

NS: - Not Significant

\*\* : = 5% level of confidence



The analysis of sex and each of the attitude sub-domains did show differences that were statistically significant and the results are presented in Table II. The results of this inventory indicated that boys and girls did not differ significantly in the attitudes they held toward physical activity as a social experience, for health and fitness, as an ascetic experience or as games of chance. This would tend to indicate that these students, whether boys or girls, held very similar sets of values for these particular attitudes, which could suggest that such values were an expression of the cultural values and expectations of the society from which the subjects were drawn. It should be remembered that the subjects were selected from the fourteen to seventeen year age group and would at this stage of their development be influenced strongly by the beliefs and value systems of their society.

With the "pursuit of vertigo" sub-domain the boys showed a higher attitude mean score than the girls which was statistically significant. As this would suggest that boys were more strongly attracted than girls to sports which promised thrills, but at some risk to the participant, it would appear that the behavioural expectations, on which the social structure of any society are based, are not dissimilar in the sampled populations in Perth and Edmonton (46). Girls expressed significantly more favourable attitudes toward participation in aesthetic activities which would tend to





TABLE III

DIFFERENCES BETWEEN MEANS FOR ALL COMBINATIONS OF VARIABLES  
AND TESTS OF SIGNIFICANCE

COMPARISON	BOYS		GIRLS		ALL	
Social - Catharsis	0.97	NS	1.11	NS	0.44	NS
Social - Aesthetic	1.99	**	3.48	**	0.59	NS
Social - Health	1.35	NS	2.07	NS	1.54	NS
Social - Vertigo	7.76	**	11.49	**	8.72	**
Social - Chance	13.76	**	16.81	**	14.54	**
Social - Ascetic	14.20	**	15.58	**	14.56	**
Catharsis - Aesthetic	1.02	NS	2.37	NS	0.15	NS
Catharsis - Health	0.38	NS	3.18	**	1.10	NS
Catharsis - Vertigo	6.79	**	12.60	**	8.28	**
Catharsis - Chance	12.79	**	17.92	**	14.10	**
Catharsis - Ascetic	13.23	**	16.69	**	14.12	**
Aesthetic - Health	0.64	NS	5.55	**	0.95	NS
Aesthetic - Vertigo	5.77	**	14.97	**	8.13	**
Aesthetic - Chance	11.77	**	20.29	**	13.95	**
Aesthetic - Ascetic	12.21	**	19.06	**	13.97	**
Health - Vertigo	6.41	**	9.42	**	7.18	**
Health - Chance	12.41	**	14.74	**	13.00	**
Health - Ascetic	12.85	**	13.51	**	13.02	**
Vertigo - Chance	6.00	**	5.32	**	5.82	**
Vertigo - Ascetic	6.44	**	4.09	**	5.84	**
Chance - Ascetic	0.44	NS	1.23	NS	0.02	NS

NS: - Not Significant

\*\* : - 5% level





TABLE IV

PRESENTATION OF MEANS AND HOYT RELIABILITIES FROM A  
THREE-WAY ANALYSIS OF GRADE, SEX AND ATTITUDE  
SUB-DOMAINS

Attitude Variable	Hoyt Reliability	<u>Grade 9</u>		<u>Grade 11</u>	
		X Boys	X Girls	X Boys	X Girls
Social	.74	43.58	46.83	43.79	42.78
Health	.76	42.22	44.92	42.48	40.53
Vertigo	.83	35.64	33.38	36.59	33.38
Aesthetic	.85	41.24	49.00	42.88	47.67
Catharsis	.82	41.86	45.83	45.11	46.13
Ascetic	.82	28.97	30.73	30.85	27.76
Chance	.84	30.28	27.85	28.61	28.29



follow a suggested pattern of attitude expectations within the society, whereas boys of this age group were expected to engage in activities where muscular power, skill, speed and physical clashes were required of the participant while the quieter, more aesthetic activities were enjoyed by the girls. Girls did show a more favourable attitude than the boys toward participation in physical activity for catharsis, which was statistically significant, indicating either a greater need for this type of activity or a more conscious use of activity to help release tension.

A point which arises from this discussion is whether the responses to the items in this inventory are representing the attitudes or values held by the individual or whether they are the attitudes held by the society, of which the individual is an integral part, and which the individual thinks he or she should hold.

#### Combinations of Attitude Variables for Boys and Girls

The differences between mean scores for all combinations of attitude variables (Table III) indicated that there was an overall statistically significant interaction between the seven attitude means. Examining interaction between individual combinations of attitude variables, as expressed by differences between means for both boys and girls, it was found that a statistically significant difference existed between the sub-domain of social experience and each of the following sub-domains; aesthetic experience, vertigo, chance





TABLE V  
RANKING OF ATTITUDE SCORES IN 4 SUB-POPULATIONS

RANK	GRADE 9		GRADE 11	
	BOYS (Mean)	GIRLS (Mean)	BOYS (Mean)	GIRLS (Mean)
1	Social (43.58)	Aesthetic (49.00)	Catharsis (45.11)	Aesthetic (47.67)
2	Health (42.22)	Social (46.83)	Social (43.79)	Catharsis (46.13)
3	Catharsis (41.86)	Catharsis (45.83)	Aesthetic (42.88)	Social (42.78)
4	Aesthetic (41.24)	Health (44.92)	Health (42.48)	Health (40.53)
5	Vertigo (35.64)	Vertigo (33.38)	Vertigo (36.59)	Vertigo (33.38)
6	Chance (30.28)	Ascetic (30.73)	Ascetic (30.85)	Chance (28.29)
7	Ascetic (28.97)	Chance (27.85)	Chance (28.61)	Ascetic (27.76)



and ascetic experience. Interaction at the same level of significance was found also between: catharsis and vertigo, chance and ascetic experience; aesthetic experience and vertigo, chance and ascetic experience; health and vertigo, chance and ascetic experience; vertigo and chance and ascetic experience. The girls' mean scores also showed statistically significant interaction between catharsis and health and aesthetic experience and health while the boys showed no statistically significant differences between these domains. Neither boys nor girls showed a statistically significant difference between means when comparing social experience with catharsis and health, catharsis with aesthetic experience, or chance with ascetic experience.

As the majority of combinations of comparisons of means of sub-domains showed statistically significant interaction, and as the Hoty Reliabilities (Table IV), which measure the internal consistency of each sub-domain, ranged from 0.75 (social) to 0.85 (aesthetic), indicating reasonable internal consistency, it would appear that the sub-domains are relatively distinct and autonomous entities.

#### Ranking of Attitudes Within the Sub-populations

An examination of the ranking of the attitude scores for the four sub-populations (Table V) showed that boys' attitudes toward physical activity, as expressed by the seven





sub-domains, differed in grades 9 and 11, yet the girls, while slight changes in ranking did occur, remained relatively more stable between grades. This could have been due to an earlier physical and emotional maturation of the girls which had lead to an earlier acceptance and adoption of the behavioural values and expectations of their society. That grade 9 boys ranked the social aspect of physical activity above the other activity sub-domains could support this suggestion of maturation. This would be the group that was still accepting, or had just accepted, society's norms of social awareness and relationships, and as with anything new, was most cognizant of this aspect.

The generally shared value of grade 9 and 11 boys of down-grading the aesthetic aspects of physical activity would probably conform with society's expectations of their value judgments. For the same reason the girls in grades 9 and 11 placed aesthetic appeal at the top of their ranking. Whether this was ranked accurately in this position on a genuine preferred basis or whether it was placed fifth because they were unsure of the interpretation given (i.e., "as a thrill, but involving some risk"), it is difficult to say. From the range of activities in which the Australian youth may engage, a panel of experts would possibly select surfing as one activity, which would satisfy the definition of this sub-domain. Yet, if the students them-





selves were consulted it is doubtful if they would consider that any element of risk was involved in this activity. On this basis it was quite possible that the pursuit of vertigo as an activity was ranked lower than might have been the case if a more concise and clear definition had been employed. The sub-domains of ascetic experience and games of chance share the sixth and seventh ranking, and, as both had noticeably lower mean scores, it may be possible that they are not major classifications of physical activity and should not be included in the inventory in their present form.

It is interesting to note that Semotiuk (46) obtained similar results from his Edmonton sample when he presented the ranked attitude scores, which could suggest that the attitudes held are an expression of the age group as well as - or independently of - the society. Where the cultural structures and values are similar in separate societies, then attitudes held by similar sub-populations within these societies may also be similar. Further exploration along these lines must, however, be left to another study.

#### Body Image Means Between Grade and Sex

Although there was no statistically significant interaction when grade and sex over all body image variables were analysed, a statistically significant difference was



found when a comparison was made between grades over both sexes and for all body image variables. The students in grade 11 demonstrated by a high mean score that they both perceived and evaluated themselves to have a favourable body appearance, which was significantly more favourable than that held by grade 9 students. It was possible that the grade 11 students were more emotionally and socially mature and thus they obtained a high mean score.

When a comparison between sexes was made over both grades and over all body image variables the boys had a higher mean score that was statistically significant. From this result it would appear that boys had a more confident and favourable concept of their ideal and perceived body image than did the girls. As the Hoyt Reliabilities for the body image subsections (Table VI) were low, ranging from 0.69 to 0.83, any results must be interpreted with caution.

As the internal consistencies of each of the body image sub-groups is so low, despite the fact that they have been maximized by the RAVE programme which raised the Hoyt Reliability from 0.31 (Ideal-activity), 0.60 (Ideal-evaluative), 0.60 (Ideal-potency), 0.58 (Perceived-evaluative), 0.55 (Perceived-potency) and 0.39 (perceived-activity) to the readings shown in Table VI, it would not be meaningful to discuss the results of the three-way analysis





in any depth.

TABLE VI

ANALYSIS OF VARIANCE OVER BOTH GRADES BETWEEN  
SEX AND THE BODY IMAGE VARIABLES (SHOWING HOYT RELIABILITIES)

Body Image Variables	Means		F	Reliability	Average For Variables
	Boys	Girls			
Ideal-Evaluative	44.55	47.69	**	.69	45.35
Ideal-Potency	44.44	29.00	**	.83	40.48
Ideal-Activity	38.91	34.77	**	.68	37.85
Perceived - Evaluative	37.05	37.63	NS	.69	37.20
Perceived - Potency	38.19	31.47	**	.71	36.47
Perceived - Activity	30.69	29.73	NS	.71	30.44
Average for Sex	38.97	35.05	**		37.96

NS: - Not Significant

\*\* : - 5% level of confidence



TABLE VII

PRESENTATION OF ATTITUDE MEANS OVER ALL ATTITUDES AND  
BOTH SEXES BETWEEN GRADES 9 AND 11 STUDENTS FROM  
HIGH AND ECONOMIC BACKGROUNDS.

ECONOMIC BACKGROUND	GRADE 9	GRADE 11	ALL
HIGH	39.15	38.51	38.80
LOW	38.62	38.62	38.62

TABLE VIII

PRESENTATION OF ATTITUDE MEANS OVER ALL ATTITUDES  
AND BOTH GRADES BETWEEN BOYS AND GIRLS  
FROM HIGH AND LOW ECONOMIC BACKGROUNDS

ECONOMIC BACKGROUND	BOYS	GIRLS
HIGH	38.65	38.89
LOW	38.53	38.72



### Four-Way Analysis of Grade, Sex, Economic Background and the Attitude Variables

When the attitude mean over all attitudes, both grades and both sexes from subjects with a high economic background was compared with the mean from subjects from a low economic background, no statistically significant difference was found (Table VII). That is, within the population tested, economic background by itself did not result in significantly different attitudes.

A comparison was then made between attitude means over all attitudes and both sexes for grade 9 and grade 11 students from high and low economic backgrounds (Table VII). The differences between means were not statistically significant which indicated that within this sample population that economic background did not significantly influence attitudes between grades 9 and 11.

Attitude means over all attitudes and both grades for boys and girls with different economic backgrounds were then compared (Table VIII). As no statistically significant differences were found between the means it indicated that taken over both grades, differences in economic background did not cause significantly different attitudes between boys and girls.

A further comparison of attitude means over all attitudes between boys and girls in grades 9 and 11 of





TABLE IX

THREE-WAY ANALYSIS OF MEANS OVER ALL ATTITUDES BETWEEN

GRADE, SEX AND ECONOMIC BACKGROUND WITH TESTS OF

SIGNIFICANCE

Comparison Grade V Sex	<u>High</u> <u>Economic</u> <u>Background</u>		F	<u>Low</u> <u>Economic</u> <u>Background</u>		<u>High Versus Low Comparisons</u>	
	Mean	Mean		Mean	Mean	High v. Low	High v. Low
G9 Boys-G9 Girls	37.55	40.27	**	39.12	38.09	NS	G9 Boys High G9 Boys Low G9 Girls High G9 Girls Low **
G11 Boys-G11 Girls	39.19	37.25	**	38.19	39.25	NS	G11 Boys High G11 Boys Low G11 Girls High G11 Girls Low **
G9 Boys-G11 Girls	37.55	39.19	NS	39.12	38.19	NS	G9 Boys High G9 Boys Low G9 Boys Low G11 Boys High G11 Boys Low G9 Boys Low G11 Boys High NS
G9 Girls-G11 Girls	40.27	37.25	**	38.09	39.25	NS	G9 Girls High G11 Girls Low G9 Girls Low G11 Girls High NS
G9 Boys-G11 Girls	37.55	37.25	NS	39.12	39.25	NS	G9 Boys High G11 Girls Low G9 Boys Low G11 Boys High NS
G11 Boys-G9 Girls	39.19	40.27	NS	38.19	38.09	NS	G11 Boys High G9 Girls Low G11 Boys Low G9 Boys High G11 Girls Low G9 Girls High **

NS: - Not Significant

\*\*:- 5% level of confidence



different economic backgrounds did result in differences in means which were statistically significant. An internal comparison between the sub-groups from a high economic background showed that significant interaction took place between several of the sub-groups (Table 1X).

#### Grade 9 Boys (High Economic Background).

When the means of the grade 9 boys and girls were compared, it was found that the girls had a higher attitude mean for participation in physical activity, but it was not statistically significant.

It would appear from these comparisons of means that grade 9 boys from a high economic background, had just gained, or were still gaining, physical, social and emotional maturity and so were very unsure of themselves, their place in society, society's expectations of them and other important factors. This was reflected in their attitudes toward physical activity, which, being indefinite, resulted in a relatively low attitude mean.

#### Grade 9 Girls (High Economic Background)

The grade 9 girls had the highest attitude mean of the four sub-groups, whether from high or low economic backgrounds. The differences between means when compared with the grade 9 boys was statistically significant. A statistically significant difference was found when the





attitude means for grade 9 and grade 11 girls were compared. Although not significant, the grade 9 girls also had a higher attitude mean than grade 11 boys.

These results would tend to suggest that the grade 9 girls had achieved physical, social and emotional maturity. They would also suggest that society held a favourable attitude toward girls of this age group participating in various physical activities as indicated by fact that this group had the highest attitude mean, i.e., the most favourable attitude towards physical activity.

#### Grade 11 Boys (High Economic Background)

Interaction between attitude means was statistically significant when grade 11 boys were compared with grade 11 girls, the boys having the higher mean. When the means were compared between the grade 11 boys and grade 9 boys and grade 9 girls, in both cases the differences were not significant. However, the grade 11 boys had a slightly higher mean than the grade 9 boys, and lower than the grade 9 girls.

These results could be interpreted to suggest that the grade 11 boys were mature students with definite attitudes and values and had the confidence to freely express these attitudes. Another factor which might, consciously or unconsciously, influence their attitudes and consequently the attitude mean, would be that society



has a very favourable attitude toward physical activity for this sub-group.

#### Grade 11 Girls (High Economic Background)

This group had the lowest attitude mean of the four sub-populations under discussion. In comparison, the grade 11 boys had a mean which was significantly higher while the interaction with the grade 9 girls was also statistically significant, with the latter showing the more favourable attitude.

Discussion of these results might be based on the maturity and social expectations of this group. It should be accepted that while these girls are mature they now have new roles, with the attitudes and values which reflect these roles. Less accent by their peers, and society in general, is placed on participation in physical activity and more emphasis is placed on involvement as a spectator - particularly in connection with aesthetic activities. This would account for the change in attitude, reflected by the difference in attitude mean, between grades 9 and 11.

#### Low Economic Background

When attitude means between the four sub-groups with a low economic background were compared, in all cases the differences between means were found to be statistically insignificant. The trend indicated by the magnitude of the means did show grade 9 girls as having the lowest mean





score, with grade 11 boys next, then grade 9 boys, and that the highest mean score was obtained by the grade 11 girls. This was exactly the reverse from similar sub-groups with a high economic background. Various factors could have been influential in bringing about these attitudes - different value systems for the differing economic backgrounds, varying degrees of reliance on family for approval and material assistance, and differing patterns of role expectations toward work, helping support the family, and leisure being inversely related between the two economic backgrounds.

#### Comparison of Attitude Means Between High and Low Economic Backgrounds

Boys: The paired comparisons may be seen in Table IX. The differences in attitudes as reflected by the means did not reveal any statistically significant differences when grade 9 boys of different backgrounds were compared; when grade 11 boys of high and low economic background were compared; or when grade 9 from a high economic position was compared with grade 11 from a low economic position and vice versa.

This would tend to indicate a feeling of independence among the boys which caused a relatively uniform attitude to be held toward physical activity, whether the boy was from a high or a low economic background, or from





grade 9 or grade 11.

Girls: Greater variation in attitude means was found between the girls' sub-groups. Grade 9 girls from a high economic background had a higher mean than grade 9 girls from the lower background and the difference was statistically significant. Grade 11 girls from the lower economic bracket had a significantly higher mean when compared with grade 11 girls from the higher economic background. The interactions between the other comparisons were not statistically significant.

From these results it would appear that girls' attitudes towards physical activity were more strongly influenced by society and the peer group than was the case with the boys.

#### Three-way Analysis of Attitude Means over Both Sexes Between Grade, Economic Background and Attitude Variables

As the interaction between these three factors did not result in any statistically significant differences no discussion on individual interactions and their possible significance may be made (Table X). Within this sample the influence of economic background on the attitudes toward the seven sub-domains of physical activity held by grades 9 and 11 students was not found to be statistically significant.



TABLE X

PRESENTATION OF ATTITUDE MEANS OVER BOTH SEXES BETWEEN  
GRADE, ECONOMIC BACKGROUND AND ATTITUDE VARIABLES.

ATTITUDE VARIABLES	GRADE 9		GRADE 11	
	HIGH	LOW	HIGH	LOW
SOCIAL	39.50	35.78	43.56	44.04
HEALTH	42.94	43.67	41.00	42.04
VERTIGO	34.63	38.12	35.56	36.36
AESTHETIC	43.82	40.76	45.60	44.08
CATHARSIS	46.94	46.10	45.44	45.17
ASCETIC	35.53	38.35	30.26	29.95
CHANCE	30.71	27.53	28.19	28.68

Three-Way Analysis Over Both Grades Between Sex, Economic  
Background and Attitude Variables.

The interaction between the three factors of sex, economic background and the attitude sub-domains was statistically significant (Table XI) at the five per cent level of confidence. From the results of this interaction, it was seen that differences existed within the economic backgrounds and between these backgrounds.





TABLE XI

THREE-WAY ANALYSIS OF MEANS OVER BOTH GRADES BETWEEN  
SEX, ECONOMIC BACKGROUND AND ATTITUDE  
VARIABLES WITH TEST OF SIGNIFICANCE

Attitude Variables	High Economic Background			Low Economic Background			F for Boys High vs. Low	F for Girls High vs. Low
	Boys	Girls	F	Boys	Girls	F		
Social	40.31	43.51	NS	37.17	45.25	**	**	NS
Health	41.14	42.71	NS	42.66	42.75	NS	NS	NS
Vertigo	36.38	33.66	NS	39.86	33.47	**	**	NS
Aesthetic	41.57	48.71	**	39.03	47.53	**	NS	NS
Catharsis	46.76	45.31	NS	45.30	45.87	NS	NS	NS
Ascetic	35.93	28.57	**	36.27	29.58	**	NS	NS
Chance	28.43	30.34	NS	29.45	26.62	NS	NS	**

NS: - Not significant

\*\* : - 5% level of significance

#### High Economic Background

Boys and girls from the high economic background did not show any significant differences in attitude toward physical activity; as a social experience, for health and fitness, for thrills with some risk, as catharsis or as games of chance. While the differences were not statistically significant, the girls did have higher attitude means in all of the above, except for catharsis. Statistically significant differences were, however, found when



girls and boys attitudes towards aesthetic and ascetic activities were compared. The girls had a more favourable attitude towards aesthetic activities while the boys indicated a more favourable attitude toward ascetic experiences.

### Low Economic Background

With respect to those of a low economic background, the girls had higher attitude means which were statistically significant when attitudes towards social and aesthetic activities were compared. Boys had higher means that were significant when attitudes toward physical activity for thrills at some risk and as an ascetic experience were examined. No statistically significant differences were found between boys' and girls' attitude means when physical activity for health and fitness, as catharsis, and as games of chance were examined. Girls had a slightly higher mean for the first two activities mentioned, however, and boys had higher means (though non-significant) for games of chance.

A marked disparity between means for social activities was found between boys and girls from a low economic background which was not present in a similar comparison between those from a high economic background. When a comparison was made between attitude means for girls from a high and from a low economic background for social activity,





no statistically significant difference was found. A comparison of means for boys from both sections for attitude toward physical activity as a social experience resulted in a statistically significant difference. This indicated that the attitude towards physical activity as a social experience held by girls was not significantly influenced by differences in economic background, whereas boys from a high economic background had a significantly more favourable attitude toward social activity than did those from a low economic background. Peer group influence outside the school, where different sets of values are held, would probably have been a major factor in this difference in attitude.

Boys from the low economic background had a noticeably higher mean for thrilling activities involving some risk (vertigo) which was statistically significant when compared with girls from the same background. They also had a higher mean than boys from the high economic background which was statistically significant. Again, this could have resulted from peer group influence from outside the school, and reflected their desire to participate in activities which helped them to overcome economic differences and gain not only the pleasure derived from participating in these activities but also the respect and friendship from those of both economic backgrounds.





As was found in the comparison of means in the high economic background, girls with a low economic background had a significantly higher mean than the boys for aesthetic activities. A comparison of the means of the boys and of the girls from high and low backgrounds did not result in any statistically significant differences.

Boys indicated a more favourable attitude toward ascetic activities than did the girls which, as in the case of those from a high economic background, was statistically significant. Comparison within sexes and between differing economic backgrounds did not result in any statistically significant differences.

With both aesthetic and ascetic activities it would appear that the attitudes held are specific to a sex and are not influenced significantly by economic background.

A more favourable attitude toward games of chance was held by girls from the high economic background, which, while the difference did not prove to be statistically significant when compared with girls from the low economic background. While it is difficult to suggest a reason for this, one that is possible is that girls from the high economic background, having different role expectations from those of the lower economic background, may have less involvement with house-keeping activities and other home



duties and so have more free time. Peer group influence and different sets of values may also be major factors for the difference in attitude.

#### Four-Way Analysis of Means Between Grade, Sex, Economic Background and the Attitude Variables

When these four factors were analyzed for interaction, no statistically significant differences were obtained (Table XII). Within this sample, the attitudes of the boys and girls in grades 9 and 11 towards participation in the seven sub-domains of physical activity were not significantly influenced by economic background.

TABLE XII

PRESENTATION OF ATTITUDE MEANS FOR A FOUR-WAY ANALYSIS  
OF GRADE, SEX, ECONOMIC BACKGROUND AND THE  
ATTITUDE SUB-DOMAINS

ATTITUDE SUB-DOMAINS	GRADE 9							
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
SOCIAL	29.00	26.92	45.96	43.09	46.85	45.00	39.07	45.47
HEALTH	38.57	44.92	42.43	41.36	46.00	42.36	38.33	43.07
VERTIGO	37.93	43.58	35.61	37.71	32.30	32.44	35.47	34.33
AESTHETIC	36.79	33.65	43.96	42.13	48.75	48.16	48.67	47.00
CATHARSIS	48.36	47.46	45.96	44.04	45.95	44.68	44.47	46.87
ASCETIC	44.36	47.19	31.71	29.96	29.35	29.16	27.53	29.93
CHANCE	27.86	30.12	28.71	29.07	32.70	24.84	27.20	28.10





Results of Four-Way Factorial Analysis of Grade, Sex,  
Education of Parent and the Attitude Sub-domains

For the purpose of analysis, the educational achievement of the parent was divided into three main areas: tertiary - University, Teachers College, etc.; Secondary - including Technical School up to matriculation level; and Primary.

TABLE XIII

FOR EDUCATIONAL ACHIEVEMENT OF PARENTS COMPARISON  
OF ATTITUDE MEANS AND TESTS OF SIGNIFICANCE  
OVER ALL ATTITUDES BOTH GRADES AND BOTH SEXES

Comparison	Mean	Mean	F
Tertiary - Secondary	40.42	38.50	**
Tertiary - Primary	40.42	38.75	*
Secondary - Primary	38.50	38.75	NS

Comparison of Attitude Means for Educational Achievement of  
Parents Over All Attitudes, Both Grades and Both Sexes

The interaction which resulted from the comparison of the means for each of the three levels of educational achievement of the parents was found to be statistically significant. The results (Table XIII) show that when the means for tertiary and secondary were compared that the



former was higher and the difference between means was also statistically significant. That is, to say that where the parent had received tertiary education, the child's attitude toward physical activity was significantly more favourable than that of a child whose parent had only received a secondary education.

A statistically significant difference was found when the tertiary mean was compared with the primary mean. The attitude of the child, then, whose parent had received tertiary education was significantly more favourable toward participation in physical activity than was the attitude of the child whose parent had received only a primary education. No statistically significant difference was found when attitude means from children whose parents had received a secondary school education were compared with the attitude means of children whose parents had only received a primary school education.

It would appear from this discussion that those children whose parents had received a tertiary education were encouraged to participate in physical activity to the extent that they developed significantly more favourable attitudes towards participation than did those children whose parents had not received a tertiary education.





Comparison of Attitude Means Over All Attitudes and Both  
Sexes for Grades 9 and 11 and the Educational Achievement  
of the Parent

No statistically significant differences were found when the means for grade 9 and 11 students with parents with differing levels of educational achievement were compared (Table XIV). From these results it would appear that the attitude toward participation in physical activity of grade 9 and 11 students was not significantly influenced by the educational achievement of their parents.

TABLE XIV

PRESENTATION OF ATTITUDE MEANS OVER ALL ATTITUDES AND BOTH  
SEXES FOR GRADES 9 AND 11 AND THE EDUCATIONAL  
ACHIEVEMENT OF THE PARENT

EDUCATIONAL ACHIEVEMENT	GRADE 9	GRADE 11
TERTIARY	40.68	40.26
SECONDARY	38.64	38.39
PRIMARY	38.82	38.71

Comparison of Attitude Means Over All Attitudes Between Grade,  
Sex and Parental Educational Achievement

No statistically significant differences were found when the interaction between means was studied (Table XV).





The attitudes of boys and girls in grades 9 and 11 toward participation in physical activity were not significantly influenced by the educational achievement of their parents.

Comparison of Attitude Means Over Both Sexes Between Grades,

Parental Educational Achievement and the Seven Attitude

Variables

No statistically significant differences were found when the differences between attitude means for both grades were studied (Table XVI). The attitudes, as reflected by the attitude means, towards each of the seven sub-domains of physical activity that were held by grade 9 and grade 11 students did not appear to be significantly influenced by the educational achievement of the parents.

TABLE XV

PRESENTATION OF ATTITUDE MEANS OVER ALL ATTITUDES BETWEEN  
GRADE, SEX AND PARENTAL EDUCATIONAL ACHIEVEMENT

EDUCATIONAL ACHIEVEMENT	BOYS		GIRLS	
	GRADE 9	GRADE 11	GRADE 9	GRADE 11
TERTIARY	40.54	40.95	40.78	39.49
SECONDARY	38.70	38.24	38.59	38.60
PRIMARY	38.21	38.38	39.27	39.79



TABLE XVI  
PRESENTATION OF ATTITUDE MEANS OVER BOTH SEXES BETWEEN GRADES,  
PARENTAL EDUCATIONAL ACHIEVEMENT AND THE SEVEN  
ATTITUDE VARIABLES

ATTITUDE VARIABLE	GRADE 9			GRADE 11		
	TERTIARY	SECONDARY	PRIMARY	TERTIARY	SECONDARY	PRIMARY
SOCIAL	38.67	30.93	34.29	45.21	43.03	44.88
HEALTH	44.92	43.58	42.93	41.84	39.84	41.28
VERTIGO	41.50	39.49	39.14	36.95	38.14	37.64
AESTHETIC	37.25	38.25	41.57	48.16	44.31	45.24
CATHARSIS	48.83	44.98	46.64	44.53	42.81	43.12
ASCETIC	42.50	42.69	38.86	29.95	30.43	29.72
CHANCE	31.08	30.56	28.29	35.21	30.16	29.12

Comparison of Attitude Means Between Grade, Sex, Parental  
Educational Achievement and the Attitude Sub-domains

The interaction between the means of each of these four factors did not result in any statistically significant differences (Table XVII). The influence of differing parental educational achievement did not appear to cause any statistically significant differences in attitude towards the seven activity sub-domains which were held by boys and girls in grades 9 and 11.





### Results of Four-Way Factorial Analysis of Grade, Sex, Country of Origin of Parent and the Attitude Sub-domains

In this analysis an attempt was made to see if the country of origin of the parent had any significant influence on the attitudes held by the children towards participation in physical activity. Within the four sub-groups were children whose parents had come from Italy, Germany, Holland the British Isles and many other countries as well as those whose parents had been born in Australia. The classification for country of origin was subdivided into four classes:

- (a) Both parents born outside Australia,
- (b) Father born in Australia,
- (c) Mother born in Australia and,
- (d) Both parents born in Australia.

When the interactions between the various combinations of factors and their means were analyzed (Table XVIII). it was found that in not one of possible combinations of factors, where the influence of the parental country of origin could be felt, was there a statistically significant interaction. Whether this was the case or whether it was due to the comparatively small sample that was drawn, or to the fact that the subjects were drawn from six schools only, and these schools may not have included a representative selection of students whose parents were of different ethnic origins it is difficult to say. One possibility is that



TABLE XVII

PRESENTATION OF ATTITUDE MEANS BETWEEN GRADE, SEX, PARENTAL  
EDUCATIONAL ACHIEVEMENT AND THE SEVEN ATTITUDE  
SUB-DOMAINS.

EDUCATIONAL ACHIEVEMENT		SOCIAL	HEALTH	VERTIGO	AESTHETIC	CATHARSIS	ASCETIC	CHANCE
B O Y S  G I R L S	G R TERTIARY	34.80	44.00	44.40	38.60	45.80	47.00	29.20
	A D SECONDARY	30.10	44.83	40.21	40.03	42.28	43.07	30.38
	E 9 PRIMARY	37.17	43.50	38.00	41.83	45.67	33.17	28.17
	G R TERTIARY	45.60	43.70	37.00	46.10	47.30	30.90	36.10
	A D SECONDARY	43.48	40.55	39.23	42.07	43.14	30.23	29.02
	E 11 PRIMARY	45.37	40.84	36.63	44.42	41.95	29.37	30.05
	G R TERTIARY	41.43	45.57	39.43	36.29	51.00	39.29	32.43
	A D SECONDARY	31.73	42.37	38.80	36.53	47.60	42.33	30.73
	E 9 PRIMARY	32.13	42.50	40.00	41.38	47.38	43.13	28.38
	G R TETRIARY	44.78	39.78	36.89	50.44	41.44	28.89	34.22
	A D SECONDARY	42.37	38.80	36.53	47.60	42.33	30.73	31.83
	E 11 PRIMARY	43.33	42.67	40.83	47.83	46.83	30.83	26.17





TABLE XVIII

PRESENTATION OF ATTITUDE MEANS FROM FOUR-WAY ANALYSIS OF  
GRADE, SEX, COUNTRY OF ORIGIN OF PARENT AND  
THE SEVEN ATTITUDE SUB-DOMAINS

?

COUNTRY OF ORIGIN OF PARENT		SOCIAL HEALTH	VERTIGO AESTHETIC	CATHARSIS ASCETIC	CHANCE			
B O Y S	G BOTH FOREIGN R FATHER	30.55	38.73	42.18	37.82	37.55	46.09	33.64
	A AUSTRALIAN D MOTHER	27.37	27.63	41.74	41.84	35.68	46.68	46.32
	E AUSTRALIAN	33.63	34.88	47.88	43.75	37.88	50.25	48.13
	9 BOTH							
	9 AUSTRALIAN	39.00	39.00	38.50	47.00	37.00	39.00	35.50
	G BOTH FOREIGN R FATHER	39.11	43.42	39.47	38.11	47.00	39.95	30.68
	A AUSTRALIAN D MOTHER	43.67	41.56	37.42	41.50	42.86	29.00	28.25
	E AUSTRALIAN	46.53	39.20	43.93	47.93	42.20	30.80	34.07
	11 BOTH							
	11 AUSTRALIAN	45.33	41.67	36.00	43.00	44.67	28.33	36.33
	G I R L S	G BOTH FOREIGN R FATHER	38.67	47.75	39.17	44.67	49.17	40.67
A AUSTRALIAN D MOTHER		43.50	43.35	33.15	46.95	44.80	32.50	28.30
E AUSTRALIAN		38.73	42.18	37.82	37.55	46.09	33.64	31.00
9 BOTH								
9 AUSTRALIAN		49.00	45.59	35.50	48.50	35.50	28.00	22.50
G BOTH FOREIGN R FATHER		42.18	37.82	37.55	46.09	33.64	31.00	37.27
A AUSTRALIAN D MOTHER		40.58	40.63	37.00	45.17	45.30	26.75	25.75
E AUSTRALIAN		47.67	43.78	35.56	50.56	47.89	31.56	33.33
11 BOTH								
11 AUSTRALIAN		43.00	41.00	30.00	46.00	41.00	34.00	33.00





the peer group had a much greater influence on their attitudes than did the family group, so that no matter what country the parents were from and what attitudes towards physical activity they had brought with them, the children would conform more closely to those attitudes and expectations which were associated with their peer group. It should be remembered also that the inventories were answered in a school room situation, which must surely have had some influence, unconscious or otherwise, on their expressed attitudes.

A separate study where the attitudes of the parents were obtained as well as those of the children, and where the subjects were randomly selected from representative ethnic groups should be carried out to determine if any interactions or correlations exist between the attitudes of the parent and the child and between ethnic groups.



## GENERAL INFORMATION

Interest in theoretical matters (Table XIX)

As was indicated in the results, only 30 per cent of the total sample showed any marked interest in theoretical matters. Grade 9 students had a higher percentage of their group expressing a great interest than did grade 12 students. It is possible that they were expressing a value which they felt they should hold even if this were not the case. Some interest was shown by 54 per cent of the total sample and 16 per cent had little or no interest in theoretical matters. These results would suggest that grade 11 students are either less interested in theoretical matters or mature enough to express their own personal opinions.

TABLE XIX

INTEREST IN THEORETICAL MATTERS OF FOUR  
SUB-POPULATIONS

Sex and Grade Level	No Response		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	30	39	37	48	10	13	77
Grade 9 Girls	0	0	16	31	31	61	4	8	51
Grade 11 Boys	0	0	11	27	26	63	4	10	41
Grade 11 Girls	0	0	8	17	22	48	16	35	46
Total	0	0	65	30	116	54	34	16	215





That which is practical and useful (Table XX)

The results indicated a similar distribution of scores to that of the previous table with 23 per cent of the total sample expressing a great amount of interest in practical matters, 53 per cent with some interest and 24 per cent with little or no interest. A more even balance of interest was found between grades in this topic, but boys in both grades expressed higher interest than girls.

TABLE XX

INTEREST IN THAT WHICH IS PRACTICAL AND USEFUL  
OF FOUR SUB-POPULATIONS

Sex and Grade Level	No Response		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	21	27	39	51	17	22	77
Grade 9 Girls	0	0	5	10	31	61	15	29	51
Grade 11 Boys	0	0	16	39	19	46	6	15	41
Grade 11 Girls	0	0	7	15	25	54	14	31	46
Total	0	0	49	23	114	53	52	24	215

That which is beautiful (Table XXI)

The majority of the subjects indicated either some or great interest in that which is beautiful. Of the total sample 45 per cent expressed very much interest, 42 per cent showed some interest and only 13 per cent expressed little



or no interest. Not a great deal of difference in interest was expressed between classes, but girls in both grades showed greater interest than boys in this aspect.

TABLE XXI

INTEREST IN THAT WHICH IS BEAUTIFUL OF FOUR SUB-POPULATIONS

Sex and Grade Level	No Response		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	31	40	34	44	12	16	77
Grade 9 Girls	0	0	31	61	17	33	3	6	51
Grade 11 Boys	0	0	11	27	23	56	7	17	41
Grade 11 Girls	0	0	24	52	17	37	5	11	46
Total	0	0	97	45	91	42	27	13	215

That which involves other people (Table XXII)

Very much interest was shown in activities which involve other people. The data showed that 55 per cent of the total sample indicated great interest in this area, with 38 per cent showing some interest, and only 7 per cent who expressed little or no interest. Little difference was found between the responses of the boys and the girls or between grades.





TABLE XXII  
INTEREST IN THAT WHICH INVOLVES OTHER PEOPLE OR  
FOUR SUB-POPULATIONS

Sex and Grade Level	No Response		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	40	52	32	42	5	6	77
Grade 9 Girls	0	0	34	67	13	25	4	8	51
Grade 11 Boys	0	0	18	44	19	46	4	10	41
Grade 11 Girls	0	0	26	57	18	39	2	4	46
Total	0	0	118	55	82	38	15	7	215

### Politics (Table XXIII)

The data from this table indicates that in the total sample the majority of the subjects have some interest, or little or no interest in politics. While 23 per cent of the total sample expressed great interest in politics 41 per cent indicated that they only had some interest and 36 per cent showed little or no interest. Very little difference was shown between grades, however boys in both grades did indicate more interest than girls.





TABLE XXIII  
INTEREST IN POLITICS OF FOUR SUB-POPULATIONS

Sex and Grade Level	No Response		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	26	34	32	41	19	25	77
Grade 9 Girls	0	0	8	16	24	47	19	37	51
Grade 11 Boys	0	0	12	29	19	46	10	25	41
Grade 11 Girls	0	0	4	9	13	28	29	63	46
Total	0	0	50	23	88	41	77	36	215

Religious matters (Table XXIV)

A very even distribution of scores was evident in this table. With the total sample 37 per cent indicated great interest in religious matters, 38 per cent showed some interest and 25 per cent expressed little or no interest. Boys in grades 9 and 11 had their scores equally distributed into each of the three interest levels, but the girls did show slightly more interest in religious matters than the boys.



TABLE XXIV  
INTEREST IN RELIGIOUS MATTERS OF FOUR SUB-POPULATIONS

Sex and Grade Level	No Response <sup>1</sup>		Very Much		Some		Little or None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	23	30	33	43	21	27	77
Grade 9 Girls	0	0	31	61	12	23	8	16	51
Grade 11 Boys	0	0	13	32	12	29	16	39	41
Grade 11 Girls	0	0	12	26	26	57	8	17	46
Total	0	0	79	37	83	38	53	25	215

PARTICIPATION IN PHYSICAL ACTIVITY

Physical activity as a social experience (Table XXV)

Within the sub-groups and within the total sample the majority of subjects indicated that they participated at least once a week in physical activity as a social experience. Of the total sample 59 per cent participated at least once a week, 25 per cent participated once or twice a month in social activities and 15 per cent participated less often or never. As can be seen from the table, little difference in participation occurred between grades while a slightly higher percentage of girls from both grades did participate at least once a week. A point that should be noted here and remembered for participation in the other





sub-domains of physical activity is that these children have had at least one compulsory physical education period each week where they participated in a variety of activities from social and folk dancing, to gymnastics and competitive sports. They were all also involved in a compulsory intramural competitive sport programme on one afternoon of every week during school hours. Allowing for the possibility that a large number of those students who answered the questionnaire would not have taken these sessions of physical activity into account, as they take them for granted and expect that others would do so too, the response that they made, in all likelihood, were in reference to activities which were outside the school's jurisdiction and which involved their voluntary participation.

TABLE XXV

## PARTICIPATION IN PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	44	57	23	30	10	13	77
Grade 9 Girls	1	2	35	68	10	20	5	10	51
Grade 11 Boys	1	2	26	64	9	22	5	12	41
Grade 11 Girls	1	2	22	48	12	26	11	24	46
Total	3	1	127	59	54	25	31	15	215



Physical activity for health and fitness (Table XXVI)

Of the total sample, 75 per cent participated in physical activity for health and fitness at least once a week, 15 per cent took part once or twice a month and 9 per cent participated less often or never. Little difference was indicated between boys and girls in grade 9, but boys in grade 12 had 85 per cent of their group take part at least once a week compared to 59 per cent of the grade 12 girls. This could be a reflection of a previous suggestion that the role expectations of the latter group with regard to physical activity had now changed.

TABLE XXVI

## PARTICIPATION PHYSICAL ACTIVITY FOR HEALTH AND FITNESS

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	60	78	12	16	5	6	77
Grade 9 Girls	1	2	39	76	6	12	5	10	51
Grade 11 Boys	1	2	35	85	2	5	3	8	41
Grade 11 Girls	1	2	27	59	12	26	3	13	46
Total	3	1	161	75	32	15	19	9	215





Physical activity as a thrill (Table XXVII)

Of the total sample, 30 per cent participated in thrilling activities at least once a week, 30 per cent took part once or twice a month and 39 per cent took part less often or never. Not a great difference in participation was shown between the boys in grades 9 and 11, but the percentage of girls in either grade was much lower than that of the boys. As would be expected, grade 11 girls had the lowest percentage of participation on the weekly basis of any of the four sub-groups. This result reflects the attitudes which were indicated by the attitude means in the earlier discussion of attitudes towards physical activity as expressed by the seven sub-domains.

TABLE XXVII

## PARTICIPATION IN PHYSICAL ACTIVITY AS A THRILL BUT AT SOME RISK

Sex and Grade Level	No Response	%	At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
			No	%	No	%	No	%	
Grade 9 Boys	0	0	34	44	20	26	23	30	77
Grade 9 Girls	1	2	12	23	10	20	28	55	51
Grade 11 Boys	1	2	15	37	14	34	11	27	41
Grade 11 Girls	1	2	4	9	21	46	20	43	46
Total	3	1	65	30	65	30	82	39	215





Physical activity as beauty in human movement (Table XXVIII)

The data showed that 18 per cent of the total sample participated at least once a week in physical activity as beauty in movement, 22 per cent took part once or twice a month and 58 per cent took part less often or never. Of the Grade 11 girls, 37 per cent participated at least once a week, which was double the percentage of the grade 9 girls. Both percentages were well in excess of the percentages of boys who participated weekly. These results were in keeping with other statements which were made previously regarding role expectations for participation in physical activity by grade 11 girls.

TABLE XXVIII

## PARTICIPATION IN PHYSICAL ACTIVITY AS BEAUTY IN MOVEMENT

Sex and Grade Level	No	Response %	At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
			No	%	No	%	No	%	
Grade 9 Boys	0	0	8	10	10	13	59	77	77
Grade 9 Girls	1	2	9	18	18	35	23	45	51
Grade 11 Boys	1	2	5	12	10	25	25	61	41
Grade 11 Girls	1	2	17	37	10	22	18	39	46
Total	3	1	39	18	48	22	125	58	215



Physical activity for the release of tension (Table XXIX)

Of the total sample 51 per cent indicated that they participated at least once a week in activities to release tension, 29 per cent took part once or twice a month and 19 per cent participated less often or never. The percentages of boys who participated in each level of activity were basically the same in both grades. However, grade 9 girls had 61 per cent of their group participating at least once a week which was a much higher percentage than was the case with grade 11 girls and a little higher percentage of weekly participation than boys in both grades.

TABLE XXIX

## PARTICIPATION IN PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION

Sex and Grade Level	No Response		At Least Once Per Week		Once Or Twice Per Month		Less Often Or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	40	52	22	29	15	19	77
Grade 9 Girls	1	2	31	61	14	27	5	10	51
Grade 11 Boys	1	2	21	51	11	27	8	20	41
Grade 11 Girls	1	2	18	39	15	33	12	26	46
Total	3	1	110	51	62	29	40	19	215





Physical activity as an ascetic experience (Table XXX)

As was indicated in the results, the majority of the subjects did not tend to participate often in activities of this nature. Of the total sample, 24 per cent took part at least once a week, 30 per cent participated once or twice a month and 41 per cent participated less often or never. Grade 9 and 11 boys, with percentages of 31 and 29 of their sub-groups respectively participated in this type of activity at least once a week, which was appreciably higher than the percentage participation on a weekly basis by either girls' group.

TABLE XXX

## PARTICIPATION IN PHYSICAL ACTIVITY AS AN ASCETIC EXPERIENCE

Sex and Grade Level	No Response		At Least Once or Once Per Week		Twice Per Month		Less Often Or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	2	3	24	31	23	30	28	36	77
Grade 9 Girls	3	6	7	14	12	23	29	57	51
Grade 11 Boys	3	7	12	29	14	35	12	29	41
Grade 11 Girls	3	7	8	17	16	35	19	41	46
Total	11	5	51	24	65	30	88	41	215



Physical activity as games of chance (Table XXXI)

Of the total sample 9 per cent participated in games of chance at least once a week, 19 per cent took part once or twice a month and 67 per cent took part less often or never. This result does not coincide with the popular conception of the gambling propensity of the average Australian who has Government operated betting shops and lotteries, and where horse racing and other modes of gambling such as cards and "two-up" are considered to be part of the way of life. It would appear from these results that either there has been a swing away from gambling or that favourable attitudes towards these activities do not develop until the person has left school. Boys, taken over both grades, appeared to be slightly more interested in these activities than girls.

TABLE XXXI

PARTICIPATION IN PHYSICAL ACTIVITY AS GAMES OF CHANCE

Sex and Grade Level	No Response No %		At Least Once or				Less		Total
			Once Per Week		Twice Per Month		Often Or		
			No	%	No	%	Never	%	
Grade 9 Boys	2	3	6	8	19	24	50	65	77
Grade 9 Girls	3	6	2	4	5	10	41	80	51
Grade 11 Boys	3	7	5	12	10	25	23	56	41
Grade 11 Girls	3	7	7	15	6	13	30	65	46
Total	11	5	20	9	40	19	144	67	215





Best Friends' Participation in Physical Activity as a  
Social Experience (Table XXXII)

Of the total sample, 58 per cent indicated that their best friends took part in social activities at least once a week, 30 per cent participated once or twice a month and 12 per cent took part in these activities less often or never. Little difference in participation within the four sub-groups was observed and a point that was worthy of note was that the percentages were almost identical, both in the sub-groups and in the total sample, with those expressed by the students concerning their own participation (Table XVI). The actual correlations between the expressed participation by both the student and his or her best friend in each of the sub-domains will be shown in Table XXX.

TABLE XXXII

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY AS A  
SOCIAL EXPERIENCE

Sex and Grade Level	No Response No %		At Least Once or				Less		Total
			Once Per Week		Twice Per Month		Often Or		
			No	%	No	%	Never	No %	
Grade 9 Boys	0	0	44	57	25	33	8	10	77
Grade 9 Girls	0	0	32	63	14	27	5	10	51
Grade 11 Boys	1	2	24	59	11	27	5	12	41
Grade 11 Girls	0	0	24	52	14	31	8	17	46
Total	1	0	124	58	64	30	26	12	215





Physical activity for health and fitness (Table XXXIII)

The data showed that 56 per cent of the total sample (indicated by their best friends) participated at least once a week in activities designed to promote health and fitness, 33 per cent took part once or twice a month and 11 per cent took part less often or never. Little difference in percentage participation in the different levels of activity was shown between the girls and boys in grade 9. Grade 11 boys, with a percentage of 73 taking part in these activities at least once a week, were far in excess of the grade 11 girls, who had only 43 per cent participating on a weekly basis. The percentage of grade 11 boys who participated weekly were also higher than that found in grade 9.

TABLE XXXIII

BEST FRIENDS PARTICIPATION IN PHYSICAL ACTIVITY FOR  
HEALTH AND FITNESS

Sex and Grade Level	No Response		At Least Once or Once Per Week		Twice Per Month		Less Often Or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	40	52	29	38	8	10	77
Grade 9 Girls	0	0	30	59	14	27	7	14	51
Grade 11 Boys	0	0	30	73	8	20	3	7	41
Grade 11 Girls	0	0	20	43	20	43	6	14	46
Total	0	0	120	56	71	33	24	11	215



Physical activity as a thrill (Table XXXIV)

The data showed that 27 per cent of the total sample indicated that their best friends participated in thrilling activities at least once a week, 32 per cent participated once or twice a month and 41 per cent took part in this type of activity less often or never. Grade 9 boys with 38 per cent participation and grade 11 boys with 41 per cent took part in this type of activity on a weekly basis to a much greater extent than did the girls, who had 14 per cent and 8 per cent of grades 9 and 11 respectively involved at this level of activity. This general pattern is very similar to that found in Table XVIII.

TABLE XXXIV

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY AS A  
THRILL BUT AT SOME RISK

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	29	38	27	35	21	27	77
Grade 9 Girls	0	0	7	14	14	27	20	59	51
Grade 11 Boys	0	0	17	41	14	35	10	24	41
Grade 11 Girls	1	2	4	8	14	31	27	59	46
Total	1	0	57	27	69	32	88	41	215





Physical activity as beauty in movement (Table XXXV)

Of the total sample, 11 per cent indicated that their best friends participated in this type of activity at least once a week, 25 per cent participated once or twice a month and 64 per cent took part less often or never. As would possibly have been anticipated, a greater percentage of girls in both grades participated on a weekly basis than did the boys. But as less than 50 per cent of any one group, or of the total sample, participated only once a month or more, it would indicate that either these types of activity were not available or that there was very little interest in participating in them.

TABLE XXXV

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY AS  
BEAUTY IN MOVEMENT

Sex and Grade Level	No Response		At Least Once Per Week		Once Or Twice Per Month		Less Often Or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	6	8	13	17	58	75	77
Grade 9 Girls	0	0	7	14	18	35	26	51	51
Grade 11 Boys	0	0	2	5	9	22	30	73	41
Grade 11 Girls	0	0	8	17	13	28	25	55	46
Total	0	0	23	11	53	25	139	64	215



Physical activity for the release of tension (Table XXXVI)

Of the total sample, 49 per cent indicated that their best friends participated in activities of this type at least once a week, 29 per cent participated once or twice a month and 22 per cent took part less often or never. Grade 9 students had a slightly higher percentage of weekly participation than did grade 11 students, with girls in both cases being very slightly higher than the boys.

TABLE XXXVI

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY FOR THE  
RELEASE OF TENSION

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often Or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	40	52	19	25	18	23	77
Grade 9 Girls	0	0	27	53	14	27	10	20	51
Grade 11 Boys	0	0	18	44	16	39	7	17	41
Grade 11 Girls	0	0	21	46	14	30	11	24	46
Total	0	0	106	49	63	29	46	22	215



Physical activity as an ascetic experience (Table XXXVII)

Of the total sample, 19 per cent indicated that their best friends participated at least once a week in activities which involved long and strenuous training, 22 per cent took part in these activities once or twice a month and 59 per cent took part less often or never. A greater percentage of boys from both grades took part than did the girls, but in general it appeared that a very small proportion of the total sample were interested in this type of activity.

TABLE XXXVII

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY AS AN  
ASCETIC EXPERIENCE

Sex and Grade Level	No		At Least Once Per Week		Once or Twice Per Month		Less Often Or Never		Total
	Response		Week		Month		Never		
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	16	21	21	27	40	52	77
Grade 9 Girls	0	0	7	14	8	16	36	70	51
Grade 11 Boys	0	0	11	27	10	24	20	49	41
Grade 11 Girls	0	0	6	13	8	17	32	70	46
Total	0	0	40	19	47	22	128	59	215





Physical activity as games of chance (Table XXXVIII)

Of the total sample, 14 per cent indicated that their best friends participated in games of chance at least once a week, 25 per cent took part once or twice a month and 61 per cent took part less often or never. The percentage for boys' participation on a weekly basis was higher than that of the girls, but there was little variation in percentage participation between classes.

TABLE XXXVIII

BEST FRIENDS' PARTICIPATION IN PHYSICAL ACTIVITY AS  
GAMES OF CHANCE

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	12	16	26	34	39	50	77
Grade 9 Girls	0	0	5	10	5	10	41	80	51
Grade 11 Boys	0	0	8	20	12	29	21	51	41
Grade 11 Girls	0	0	5	11	10	22	31	67	46
Total	0	0	30	14	53	25	132	61	215



Correlation for participation between self and peers

(Table XXXIX)

A correlation for participation in each of the seven types of activities was carried out between the subject's statement of the frequency of his own and his best friends' participation (Table XXXIX). As is seen from the table, the correlation between "self and peers" was statistically significant at the one per cent level of confidence for each activity. It would appear from these results that acceptance, or the desire for acceptance by the peer group, resulted in the adoption of uniform patterns of participation and attitudes towards participation.

TABLE XXXIX

CORRELATION FOR PARTICIPATION IN EACH OF THE SEVEN SUB-DOMAINS OF PHYSICAL ACTIVITY BETWEEN THE SUBJECT AND HIS OR HER BEST FRIENDS AS STATED BY THE SUBJECT

Physical Activity	Correlation Between Self and Peer	Level of Significance
1. Social Experience	0.56	**
2. Health and Fitness	0.44	**
3. Thrill with Risk	0.56	**
4. Beauty in Movement	0.46	**
5. Release of Tension	0.57	**
6. Ascetic Experience	0.31	**
7. Games of Chance	0.58	**

(Using the Table of 5% and 1% points for  $r$  and  $R$ , the Simple Product-Movement and Multiple Correlation Coefficients).

N= 215

NS: - Not Significant

\*: - 5% Level of Significance

\*\*: - 1% Level of Significance





Watching Physical Activity on Television (Table XL)

The results from Table XXXI indicated that for the total sample, Teen Dance Programmes were the most popular of the programmes under discussion. As 73 per cent of the total sample viewed these programmes at least once a week and the next most popular programme (thrilling sports) was watched by only 46 per cent of the total sample, it would appear that either the dance programmes were particularly well presented, were presented more often than other programmes or were of more interest to this group than the other offerings on television.

Grade 11 students had a greater percentage of their group watching than did grade 9, with the girls in grade 11 having the highest percentage of Teen Dance viewers in any group.

Very little interest was shown in watching physical fitness programmes, although it should be remembered that these programmes are usually shown at mid-morning when are children are at school.

Boys from both grades had high percentages of their group watching thrilling sports on television at least once a week. With percentages of 57 and 59 for grade 9 and 11 respectively, they had a much greater proportion of their group watching these programmes than girls.

With only 14 per cent of the total sample watching



TABLE XL

## WATCHING PHYSICAL ACTIVITY ON TELEVISION

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Teen Dance Programmes									
Grade 9 Boys	0	0	53	69	15	20	9	11	77
Grade 9 Girls	0	0	34	66	5	10	12	24	51
Grade 11 Boys	0	0	31	76	5	12	5	12	41
Grade 11 Girls	0	0	39	85	5	11	2	4	46
Total	0	0	157	73	30	14	28	13	215
Physical Fitness Programmes									
Grade 9 Boys	0	0	7	9	18	23	52	68	77
Grade 9 Girls	0	0	2	4	16	31	33	65	51
Grade 11 Boys	0	0	8	20	8	20	25	60	41
Grade 11 Girls	0	0	3	7	12	26	31	67	46
Total	0	0	20	9	54	25	141	66	215
Dangerous and Thrilling Sport Programmes									
Grade 9 Boys	0	0	44	57	24	31	9	12	77
Grade 9 Girls	0	0	18	35	18	35	15	30	51
Grade 11 Boys	0	0	24	59	13	32	4	9	41
Grade 11 Girls	0	0	13	28	26	57	7	15	46
Total	0	0	99	46	81	38	35	16	215
Programmes Showing Beauty of Movement									
Grade 9 Boys	0	0	9	12	31	40	37	48	77
Grade 9 Girls	0	0	7	14	26	51	18	35	51
Grade 11 Boys	0	0	5	12	18	44	18	44	41
Grade 11 Girls	0	0	8	17	20	43	18	40	46
Total	0	0	29	14	95	44	91	42	215
College or Professional Sports Programmes									
Grade 9 Boys	0	0	29	38	32	42	16	20	77
Grade 9 Girls	0	0	16	31	22	43	13	26	51
Grade 11 Boys	0	0	12	29	15	36	14	35	41
Grade 11 Girls	0	0	10	22	15	33	21	45	46
Total	0	0	67	31	84	39	64	30	215





programmes depicting beauty in human movement at least once a week, 44 per cent watching once or twice a month, and 42 per cent watching less often or never, it would appear that either these type of programmes are not presented often, or that interest in these shows was mild. Grade 11 girls did have a slightly higher percentage of their group viewing these shows which would conform with their role expectations.

Boys in grade 9 had the highest percentage of their group watching college or professional sport on television. The girls in grade 9 had the next highest involvement and this was followed by grade 11 boys and girls. As 31 per cent of the total sample watched this type of programme at least once a week it would appear to have a generally popular appeal.

#### NEWSPAPERS, MAGAZINES AND BOOKS

How often do you read about sports and physical activity in the newspaper? (Table XLI)

Of the total sample, 71 per cent indicated that they read about sporting activities in the newspapers at least once a week, 14 per cent did some reading in this area about once or twice a month and 14 per cent read about these activities less often or never. Grade 11 girls





seemed to have the least interest in newspaper articles on sporting activities with only 43 per cent of their group reading sports articles at least once a week. The other three groups had approximately the same proportion of sports readers as the total sample. As was indicated by the relatively high percentages involved, newspaper articles on sport and other physical activities are a popular method of communication with the masses.

TABLE XLI

FREQUENCY OF READING ABOUT SPORT AND PHYSICAL ACTIVITY  
IN THE NEWSPAPER

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	61	79	10	13	6	8	77
Grade 9 Girls	0	0	39	76	4	8	8	16	51
Grade 11 Boys	1	2	33	80	2	6	5	12	41
Grade 11 Girls	2	4	20	43	15	33	9	20	46
Total	3	1	153	71	31	14	28	14	215



How often do you read about sport and physical activity in magazines and books? (Table XLII)

Of the total sample, 29 per cent indicated that they read about sporting activities in magazines and books at least once a week, 44 per cent stated that they read sports articles from magazines and books once or twice a month and 26 per cent read less often or never. A greater percentage of grade 9 students read these types of articles than grade 11 students, with boys in both groups being more avid readers.

TABLE XLII

FREQUENCY OF READING ABOUT SPORT AND PHYSICAL ACTIVITY  
IN BOOKS AND MAGAZINES

Sex and Grade Level	No Response		At Least Once Per Week		Once or Twice Per Month		Less Often or Never		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	28	36	31	40	18	24	77
Grade 9 Girls	0	0	27	33	21	41	13	26	51
Grade 11 Boys	1	2	10	24	21	52	9	22	41
Grade 11 Girls	2	4	8	17	22	48	14	31	46
Total	3	1	63	29	95	44	54	26	215





To how many sporting clubs or organizations (outside of school) do you belong? (Table XLIII)

Of the total sample, 32 per cent indicated that they belong to two or more clubs, 39 per cent belonged to one club and 27 per cent did not belong to any club or organization which sponsored physical activity. When the responses by the four sub-populations were analyzed it was noted that 46 per cent of grade 11 boys belonged to two or more clubs and 32 per cent belonged to one club. Grade 9 boys, with 38 per cent of their group being members of two or more clubs and 36 per cent members of one club, had appreciably more club members than the girls.

A comparison with the Edmonton sample (46) showed that the students in Perth took advantage of the greater opportunities for participating in sporting activities as was reflected by having a greater percentage enrolled as members of sporting clubs.

TABLE XLIII

## NUMBER OF CLUBS OR ORGANIZATIONS TO WHICH YOU BELONG

Sex and Grade Level	No		Two or More		One		None		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	0	0	29	38	28	36	20	26	77
Grade 9 Girls	0	0	9	18	26	51	16	31	51
Grade 11 Boys	1	2	19	46	13	32	8	20	41
Grade 11 Girls	3	7	11	23	18	40	14	30	46
Total	4	2	68	32	85	39	58	27	215



Television sets in the home? (Table XLIV)

Of the total sample, 87 per cent indicated that they had a television set in their home, while 11 per cent did not have one. Apparently television sets have become more common in Perth in the last two or three years.

TABLE XLIV  
NUMBER OF TELEVISION SETS IN HOMES

Sex and Grade Level	No Response		Yes		No		Total
	No	%	No	%	No	%	
Grade 9 Boys	0	0	68	88	9	12	77
Grade 9 Girls	1	2	41	78	9	20	51
Grade 11 Boys	1	2	38	92	2	6	41
Grade 11 Girls	2	4	40	85	4	11	46
Total	4	2	187	87	24	11	215

Place of Birth, Education and Occupation of Parent

In what country were your parents born? (Table XLV)

Of the total sample, 69 per cent indicated that both parents were born in Australia, 9 per cent stated that just their father was Australian born, 9 per cent that their mother only was born in Australia, and 13 per cent stated that neither parent had been born in Australia.





How much education has the head of your household had?

(Table XLVI)

Of the total sample, 15 per cent indicated that the head of the household had received a university or teacher's college education, 6 per cent stated that the parent or guardian had matriculated from grammar school, 9 per cent stated that the head of the household had graduated from technical school, 56 per cent indicated that the head of the household had graduated from secondary school, while 9 per cent had completed primary school only. The results indicated that by far the biggest proportion of the parents had received only a secondary education.

What does the head of your household do? (Table XLVII)

Of the total sample, 6 per cent indicated that the head of their household was either a higher executive, a proprietor of a large concern, or a major professional; 10 per cent indicated that the head of the household was either a business manager or a lesser professional, 16 per cent indicated that the head of the household had administrative duties or was a minor professional; 21 per cent indicated that the head of the household was either a sales worker, a technician, or an owner of a small business; 18 per cent indicated that the head of the house was either a machine operator or a semi-skilled employee; and, 5 per cent indicated that the head of the household was an unskilled employee.





TABLE XLV

COUNTRY OF PARENTAL BIRTH

Sex and Grade Level	Father & Mother in Home Country		Father in Home Country		Mother in Home Country		Father & Mother not in Home Country		Total
	No	%	No	%	No	%	No	%	
Grade 9 Boys	54	69	5	7	8	10	10	14	77
Grade 9 Girls	34	66	6	12	3	6	8	16	51
Grade 11 Boys	30	73	2	5	5	12	4	10	41
Grade 11 Girls	32	70	6	13	3	7	5	10	46
Total	150	69	19	9	19	9	27	13	215



TABLE XLVI

EDUCATION OF THE HEAD OF THE HOUSEHOLD

Sex and Grade Level	University or											
	No Response		Training College		Grammar School		Technical School		Secondary School		Primary School	
	No	%	No	%	No	%	No	%	No	%	No	%
Grade 9 Boys	2	3	12	16	2	3	11	13	44	57	6	8
Grade 9 Girls	3	6	6	12	3	16	2	3	32	63	5	10
Grade 11 Boys	3	7	7	17	3	7	2	6	21	51	5	12
Grade 11 Girls	3	7	7	15	4	9	4	8	24	52	4	9
Total	11	5	32	15	12	6	19	9	121	56	20	9





TABLE XLVII

OCCUPATION OF THE HEAD OF THE HOUSEHOLD

Sex and Grade Level	Higher Exec. & Major Profes.		Bus. & Lesser Profes.		Adminis. Personnel Minor Profes.		Sales Workers & Technicians		Skilled Manual Employees		Machine Op. & Semi-Skilled Employees		Unskilled Employees	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Grade 9 Boys	3	4	4	8	12	16	15	20	15	20	23	28	3	4
Grade 9 Girls	4	8	6	11	7	14	10	20	7	14	14	27	3	6
Grade 11 Boys	3	6	5	13	7	18	10	24	8	20	6	15	2	4
Grade 11 Girls	3	7	5	10	8	16	10	22	9	21	9	20	2	4
Total	13	6	22	10	34	16	45	21	39	18	52	24	10	5



### Participation in Physical Activity

In this section a series of tables will be discussed in an attempt to supply some possible reasons for the results and to offer such explanations as are necessary. In this discussion, references will be made to Tables XLVIII, XLIX and L, and the results will be used to indicate the activities in which the student participated, those in which he or she would like to participate, and those in which the father participated. When the results of the total sample were examined, swimming and tennis were popular selections with all groups, as they provide a variety of different aspects of physical activity - social experience, health and fitness, beauty in movement and to release tension. Australian Rules Football figured prominently, with the percentage participation being 20, 12 and 13 respectively for what the student does, would like to do, and the activities his father enjoyed. Surfing, cricket, field hockey, social dancing and many others are mentioned, indicating the range of activities which may be enjoyed by young and old alike. An important point to note is that the parents would be in their late thirties or early forties and still participated in activities demanding sound physical condition, competitive spirit and the ability to absorb physical clashes.





Physical activity most frequently participated in (Table XLVIII)

Of the total sample, 20 per cent indicated that they participated more often in swimming than in any other sport, 17 per cent took part in Australian Rules Football, 11 per cent played field hockey, 8 per cent played tennis, 4 per cent played soccer and 4 per cent played rugby. The boys in both grades indicated a strong preference for Australian Rules, but the general popularity of swimming with all groups resulted in it's receiving the highest percentage of participation from the total sample.

Physical activity most frequently participated in by father (Table XLIX)

Of the total sample, 13 per cent indicated that their father or guardian participated in Australian Rules Football, 12 per cent stated that their father played tennis, 11 per cent indicated that their father played golf, 9 per cent stated that he went swimming, 7 per cent that he played soccer and 3 per cent said that their father played cricket.

Physical activity most frequently desired to participate in (Table L)

Of the total sample, 12 per cent indicated that the sport that they would most like to play was Australian Rules Football, 9 per cent selected skiing, 8 per cent stated that they would like to do some skin or scuba diving, 8 per cent most frequently desired to participate in swimming, 6 per





cent in ice skating and 3 per cent stated that tennis was the sport that they most desired to play. The boys in both grades indicated a strong preference for Australian Rules football while the girls appeared to be more interested in individual sports.

#### Spectator Sports Including Television Viewing

The most popular spectator sport for this sample population was Australian Rules Football. Part of its attraction was due to the standard of skill demanded of all players, to the speed of the action, to the many violent physical clashes (the players do not wear padding or helmets), and to the sometime fanatical attachment which some people have for their favourite team. Field hockey, soccer, tennis and basketball were also quite popular but they could not compete with the strong attraction that Australian Rules had for the majority of the sporting public.

As very few of the important games of Australian Rules are shown on television, the viewers tended to watch other activities such as soccer, professional wrestling and dancing. The golf shows on television are viewed by many and are becoming very popular. Car racing appeared to have an almost universal appeal to both boys and girls, young and old.



TABLE XLVIII

## PHYSICAL ACTIVITIES MOST FREQUENTLY PARTICIPATED IN

Rank	Physical Activity	Number of Responses	Percentage
<u>TOTAL SAMPLE</u>			
1	Swimming	45	20
2	Australian Rules Football	35	17
3	Field Hockey	24	11
4	Tennis	16	8
5	Soccer	9	4
6	Rugby	9	4
	Others	77	36
		<u>215</u>	<u>100</u>
<u>GRADE 9 BOYS</u>			
1	Australian Rules Football	20	26
2	Field Hockey	12	16
3	Swimming	11	14
4	Rugby	6	8
5	Tennis	5	6
6	Soccer	4	5
	Others	19	25
		<u>77</u>	<u>100</u>
<u>GRADE 11 BOYS</u>			
1	Australian Rules Football	15	37
2	Swimming	7	17
3	Soccer	5	12
4	Surfing	5	12
5	Rugby	3	8
6	Tennis	2	5
	Others	4	9
		<u>41</u>	<u>100</u>





TABLE XLVIII (Continued)

Rank	Physical Activity	Number of Responses	Percentage
GRADE 9 GIRLS			
1	Swimming	12	24
2	Field Hockey	10	20
3	Basketball	8	15
4	Social Dancing	7	13
5	Tennis	5	10
6	Equestrian	3	6
	Others	6	12
		<u>51</u>	<u>100</u>
GRADE 11 GIRLS			
1	Swimming	15	34
2	Basketball	8	17
3	Social Dancing	8	17
4	Tennis	4	9
5	Field Hockey	2	4
6	Surfing	2	4
	Others	7	15
		<u>46</u>	<u>100</u>



TABLE XLIX  
PHYSICAL ACTIVITIES MOST FREQUENTLY PARTICIPATED IN BY  
THE FATHER OR GUARDIAN

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Australian Rules Football	27	13
2	Tennis	26	12
3	Golf	24	11
4	Swimming	19	9
5	Soccer	14	7
6	Cricket	7	3
	Others	98	45
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Tennis	10	13
2	Australian Rules Football	8	10
3	Swimming	8	10
4	Soccer	7	9
5	Golf	5	6
6	Cricket	4	5
	Others	35	47
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Australian Rules Football	7	17
2	Soccer	5	12
3	Golf	4	9
4	Tennis	3	8
5	Swimming	3	8
6	Field Hockey	2	5
	Others	17	41
		<u>41</u>	<u>100</u>



TABLE XLIX (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Golf	9	17
2	Tennis	8	16
3	Fishing	5	10
4	Australian Rules Football	3	6
5	Swimming	3	6
6	Soccer	2	4
	Other	21	41
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Australian Rules Football	9	20
2	Golf	6	13
3	Swimming	5	11
4	Tennis	5	11
5	Cricket	3	7
6	Lawn Bowls	2	4
	Other	16	34
		<u>46</u>	<u>100</u>





TABLE L  
PHYSICAL ACTIVITIES MOST FREQUENTLY DESIRED TO  
PARTICIPATE IN

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Australian Rules Football	25	12
2	Skiing	19	9
3	Skin and Scuba Diving	17	8
4	Swimming	16	8
5	Ice Skating	13	6
6	Tennis	7	3
	Others	118	54
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Australian Rules Football	12	16
2	Car and Cycle Racing	6	8
3	Swimming	4	5
4	Skin and Scuba Diving	4	5
5	Skiing	3	4
6	Rugby	3	4
	Others	45	58
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Australian Rules Football	13	32
2	Skiing	6	13
3	Skin and Scuba Diving	5	12
4	Swimming	3	8
5	Soccer	3	8
6	Squash	2	5
	Others	9	22
		<u>41</u>	<u>100</u>



TABLE L (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Skin and Scuba Diving	8	16
2	Skiing	6	12
3	Ice Skating	4	8
4	Tennis	4	8
5	Swimming	3	6
6	Social Dancing	3	6
	Others	23	44
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Ice Skating	9	20
2	Swimming	6	13
3	Field Hockey	4	9
4	Skiing	4	9
5	Tennis	3	7
6	Social Dancing	3	7
	Others	17	35
		<u>46</u>	<u>100</u>





TABLE LI  
FAVOURITE SPECTATOR SPORT

Rank	Physical Activity	Number of Responses	Percentage
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TOTAL SAMPLE

1	Australian Rules Football	114	53
2	Field Hockey	14	7
3	Soccer	14	7
4	Tennis	13	6
5	Basketball	12	6
6	Gymnastics	5	2
	Others	43	19
		<u>215</u>	<u>100</u>

GRADE 9 BOYS

1	Australian Rules Football	42	55
2	Field Hockey	8	10
3	Soccer	5	6
4	Rugby	3	4
5	Basketball	3	4
6	Tennis	3	4
	Others	13	17
		<u>77</u>	<u>100</u>

GRADE 11 BOYS

1	Australian Rules Football	24	59
2	Tennis	4	9
3	Soccer	3	8
4	Surfing	2	5
5	Rugby	2	5
6	Swimming	2	5
	Others	4	9
		<u>41</u>	<u>100</u>



TABLE LI (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Australian Rules Football	28	54
2	Gymnastics	5	10
3	Basketball	4	8
4	Tennis	3	6
5	Soccer	3	6
6	Field Hockey	3	10
	Others	5	10
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Australian Rules Football	20	41
2	Basketball	5	11
3	Swimming	3	7
4	Field Hockey	3	7
5	Tennis	3	7
6	Soccer	3	7
	Others	9	20
		<u>46</u>	<u>100</u>



TABLE LII

SPECTATOR SPORT MOST FREQUENTLY ATTENDED BY FATHER OR  
GUARDIAN

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## TOTAL SAMPLE

1	Australian Rules Football	92	42
2	Soccer	16	8
3	Tennis	12	6
4	Field Hockey	11	5
5	Rugby	10	5
6	Cricket	4	2
	Others	70	32
		<u>215</u>	<u>100</u>

## GRADE 9 BOYS

1	Australian Rules Football	30	38
2	Soccer	5	6
3	Tennis	3	4
4	Rugby	3	4
5	Field Hockey	2	3
6	Car Racing	2	3
	Others	32	42
		<u>77</u>	<u>100</u>

## GRADE 11 BOYS

1	Australian Rules Football	20	49
2	Soccer	4	9
3	Field Hockey	3	8
4	Basketball	2	5
5	Tennis	2	5
6	Cricket	2	5
	Others	8	19
		<u>41</u>	<u>100</u>





TABLE LII (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Australian Rules Football	24	46
2	Rugby	5	10
3	Soccer	3	6
4	Tennis	3	6
5	Cricket	2	4
6	Field Hockey	1	2
	Others	13	26
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Australia Rules Football	18	40
2	Field Hockey	5	11
3	Tennis	4	9
4	Soccer	4	9
5	Track and Field	2	4
6	Rugby	2	4
	Others	11	23
		<u>46</u>	<u>100</u>



TABLE LIII

## PHYSICAL ACTIVITY MOST FREQUENTLY WATCHED ON TELEVISION

Rank	Physical Activity	Number of Responses	percentage
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## TOTAL SAMPLE

1	Dancing	65	30
2	Soccer	39	18
3	Professional Wrestling	19	9
4	Car Racing	19	9
5	Tennis	13	6
6	Australian Rules Football	8	4
	Others	52	24
		<u>215</u>	<u>100</u>

## GRADE 9 BOYS

1	Soccer	18	23
2	Dancing	16	21
3	Professional Wrestling	9	12
4	Car Racing	8	10
5	Australian Rules Football	6	8
6	Track and Field	4	5
	Others	16	21
		<u>77</u>	<u>100</u>

## GRADE 11 BOYS

1	Soccer	12	29
2	Professional Wrestling	8	20
3	Dancing	7	17
4	Car Racing	5	12
5	Boxing	2	5
6	Australian Rules Football	2	5
	Others	5	12
		<u>41</u>	<u>100</u>





TABLE LIII (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Dancing	19	37
2	Soccer	7	13
3	Tennis	5	10
4	Gymnastics	5	10
5	Car Racing	3	6
6	Professional Wrestling	2	4
	Others	10	20
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Dancing	23	49
2	Tennis	8	17
3	Ballet	4	9
4	Car Racing	3	7
5	Swimming	3	7
6	Soccer	2	4
	Others	3	7
		<u>46</u>	<u>100</u>



TABLE LIV

PHYSICAL ACTIVITY MOST FREQUENTLY WATCHED ON TELEVISION  
BY FATHER OR GUARDIAN

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Soccer	59	28
2	Professional Wrestling	33	15
3	Golf	32	15
4	Car Racing	15	7
5	Tennis	11	5
6	Australian Rules Football	5	2
	Others	60	28
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Soccer	20	26
2	Golf	14	18
3	Car Racing	6	8
4	Professional Wrestling	6	8
5	Tennis	3	4
6	Australian Rules Football	3	4
	Others	24	31
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Golf	14	31
2	Professional Wrestling	8	20
3	Soccer	8	20
4	Horse Racing	3	8
5	Tennis	3	8
6	Car Racing	2	5
	Others	3	8
		<u>41</u>	<u>100</u>



TABLE LIV (Continued)

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## GRADE 9 GIRLS

1	Soccer	16	31
2	Professional Wrestling	9	17
3	Car Racing	5	10
4	Golf	2	4
5	Horse Racing	2	4
6	Tennis	2	4
	Others	15	30
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Soccer	15	34
2	Professional Wrestling	10	22
3	Golf	2	4
4	Tennis	2	4
5	Australian Rules Football	2	4
6	Car Racing	2	4
	Others	13	28
		<u>46</u>	<u>100</u>





Favourite Spectator Sport (TABLE LI)

Of the total sample, 53 per cent indicated that they watched Australian Rules Football, 7 per cent stated that they watched field hockey, 7 per cent watched soccer, 6 per cent watched tennis, 6 per cent watched basketball and 2 per cent watched gymnastics. Australian Rules Football had the greatest following in both grades and with both sexes.

Spectator sport most frequently attended by father or guardian (TABLE LII)

Of the total sample, 42 per cent indicated that their father or guardian watched Australian Rules Football, 8 per cent watched soccer, 6 per cent watched tennis, 5 per cent watched field hockey, 5 per cent watched rugby and 2 per cent stated that their father or guardian watched cricket. Australian Rules Football was chosen most frequently by the fathers of boys and girls in both grades.

Physical activity most frequently watched on television (TABLE LIII)

Of the total sample, 30 per cent watched dance programmes, 18 per cent watched soccer, 9 per cent watched professional wrestling, 9 per cent watched car racing, 6 per cent watched tennis and 4 per cent watched Australian Rules Football. The boys in both grades, tended to watch



soccer matches while the girls preferred dancing programmes.

Physical activity most frequently watched on television by father or guardian (TABLE LIV)

Of the total sample, 28 per cent stated that their father watched soccer games, 15 per cent watched professional wrestling, 15 per cent watched golf, 7 per cent watched car racing, 5 per cent watched tennis and 2 per cent watched Australian Rules Football.

The selection of activities that most closely portray each of the attitude sub-domains

An examination of Tables LV to LXI, inclusively, revealed more than a series of percentages for sub-groups and for samples. As the selections of the activities for each sub-domain were presented it was noticed that certain sports appeared in more than one category. This indicated both the versatility of the sports and the popularity which they enjoyed.

Swimming as an activity was selected in each of the following classifications; social experience, health and fitness, catharsis and ascetic. It has long been said that swimming was the best all-round activity in which a person could indulge, but while the social and physical fitness aspects of swimming have been known and recognized





by both young and old, the ascetic nature was realized by only those few who participated in competitive swimming.

Gymnastics ranked in the top three selections of the following classifications: health and fitness, aesthetic and ascetic experiences. Tennis and track and field were each selected in two different categories and the remainder were not ranked in the top three places more than once.

Physical activities providing social experiences (TABLE LV)

Of the total sample, 32 per cent selected dancing as an activity in this classification, 18 per cent selected swimming, 17 per cent selected tennis, 7 per cent selected squash, 5 per cent selected basketball and 4 per cent selected badminton as suiting the requirements of this classification.

Dancing was selected by the greater proportion of girls from both grades, and by grade 9 boys. Grade 11 boys placed tennis and swimming slightly ahead of dancing.

Physical activity for health and fitness (TABLE LVI)

Of the total sample, 20 per cent selected track and field as a sport representing this classification, 20 per cent selected swimming, 19 per cent selected gymnastics, 8 per cent chose Australian Rules Football, 6 per cent chose tennis, and 4 per cent felt that rugby satisfied the conditions for this classification.



TABLE LV

## PHYSICAL ACTIVITIES PROVIDING SOCIAL EXPERIENCES

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## TOTAL SAMPLE

1	Dancing	69	32
2	Swimming	38	18
3	Tennis	37	17
4	Squash	14	7
5	Basketball	11	5
6	Badminton	8	4
	Others	38	17
		<u>215</u>	<u>100</u>

## GRADE 9 BOYS

1	Dancing	26	33
2	Tennis	12	16
3	Swimming	8	10
4	Squash	6	8
5	Basketball	6	8
6	Field Hockey	3	4
	Others	16	21
		<u>77</u>	<u>100</u>

## GRADE 11 BOYS

1	Tennis	13	32
2	Swimming	10	24
3	Dancing	8	20
4	Field Hockey	4	9
5	Squash	2	5
6	Badminton	2	5
	Others	2	5
		<u>41</u>	<u>100</u>



TABLE LV (Continued)

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## GRADE 9 GIRLS

1	Dancing	20	38
2	Swimming	12	24
3	Tennis	6	12
4	Badminton	3	6
5	Squash	2	4
6	Basketball	2	4
	Others	6	12
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Dancing	15	34
2	Swimming	8	17
3	Tennis	6	13
4	Squash	4	9
5	Basketball	3	7
6	Badminton	3	7
	Others	7	13
		<u>46</u>	<u>100</u>





TABLE LVI

## PHYSICAL ACTIVITIES FOR HEALTH AND FITNESS

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## TOTAL SAMPLE

1	Track and Field	44	20
2	Swimming	43	20
3	Gymnastics	41	19
4	Australian Rules Football	16	8
5	Tennis	12	6
6	Rugby	8	4
	Others	51	23
		<u>215</u>	<u>100</u>

## GRADE 9 BOYS

1	Track and Field	20	26
2	Gymnastics	14	18
3	Australian Rules Football	10	13
4	Rugby	6	8
5	Swimming	6	8
6	Field Hockey	4	5
	Others	17	22
		<u>77</u>	<u>100</u>

## GRADE 11 BOYS

1	Gymnastics	13	32
2	Track and Field	9	22
3	Swimming	8	20
4	Australian Rules Football	6	13
5	Rugby	2	5
6	Tennis	2	5
	Others	1	3
		<u>41</u>	<u>100</u>



TABLE LVI (Continued)

Rank	Physical Activity	Number of Responses	Percentage
------	-------------------	---------------------	------------

## GRADE 9 GIRLS

1	Swimming	16	31
2	Track and Field	14	27
3	Gymnastics	6	12
4	Tennis	4	8
5	Basketball	3	6
6	Field Hockey	3	6
	Others	5	10
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Swimming	13	28
2	Gymnastics	8	17
3	Tennis	6	13
4	Track and Field	4	9
5	Squash	4	9
6	Basketball	3	7
	Others	8	17
		<u>46</u>	<u>100</u>





TABLE LVII

## PHYSICAL ACTIVITIES AS THE PURSUIT OF VERTIGO

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Skiing	46	21
2	Car Racing	37	17
3	Sky Diving	29	14
4	Surfing	23	11
5	Gymnastics	9	4
6	Diving	8	4
	Others	63	29
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Car Racing	18	23
2	Sky Diving	12	16
3	Surfing	9	12
4	Skiing	7	9
5	Australian Rules Football	6	8
6	Gymnastics	3	4
	Others	22	28
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Surfing	14	35
2	Skiing	8	20
3	Car Racing	5	10
4	Sky Diving	2	5
5	Motor Cycle Racing	2	5
6	Diving	2	5
	Others	8	20
		<u>41</u>	<u>100</u>



TABLE LVII (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Skiing	14	27
2	Sky Diving	8	16
3	Water Skiing	6	12
4	Car Racing	5	10
5	Diving	2	4
6	Gymnastics	2	4
	Others	14	27
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Skiing	17	38
2	Car Racing	9	20
3	Sky Diving	7	13
4	Gymnastics	4	9
5	Diving	4	9
6	Flying	2	4
	Others	3	7
		<u>46</u>	<u>100</u>



TABLE LVIII

## PHYSICAL ACTIVITIES AS AN AESTHETIC EXPERIENCE

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Ballet	60	28
2	Gymnastics	54	25
3	Diving	23	11
4	Figure Skating	14	7
5	Swimming	12	6
6	Dancing	10	5
	Others	42	18
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Gymnastics	28	35
2	Ballet	14	18
3	Diving	7	9
4	Swimming	6	8
5	Figure Skating	5	7
6	Track and Field	5	7
	Others	12	16
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Ballet	16	39
2	Diving	10	24
3	Gymnastics	6	16
4	Figure Skating	4	9
5	Swimming	2	5
6	Track and Field	2	5
	Others	1	2
		<u>41</u>	<u>100</u>





TABLE LVIII (continued)

Rank	Physical Activity	Number of Responses	Percentage
GRADE 9 GIRLS			
1	Ballet	14	27
2	Gymnastics	11	22
3	Dancing	6	12
4	Diving	4	8
5	Swimming	4	8
6	Track and Field	3	5
	Others	9	18
		<u>51</u>	<u>100</u>
GRADE 11 GIRLS			
1	Ballet	16	34
2	Gymnastics	9	20
3	Figure Skating	5	11
4	Dancing	4	9
5	Modern Dance	4	9
6	Diving	2	4
	Others	6	13
		<u>46</u>	<u>100</u>



TABLE LIX  
PHYSICAL ACTIVITY FOR CATHARSIS

Rank	Physical Activity	Number of Responses	Percentage
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TOTAL SAMPLE

1	Australian Rules Football	38	16
2	Swimming	28	13
3	Tennis	24	11
4	Rugby	18	9
5	Soccer	18	9
6	Track and Field	16	8
	Others	73	23
		<u>215</u>	<u>100</u>

GRADE 9 BOYS

1	Australian Rules Football	25	33
2	Rugby	14	18
3	Soccer	8	10
4	Field Hockey	6	8
5	Swimming	6	8
6	Track and Field	4	5
	Others	14	18
		<u>77</u>	<u>100</u>

GRADE 11 BOYS

1	Australian Rules Football	13	30
2	Soccer	10	24
3	Track and Field	6	13
4	Rugby	4	9
5	Basketball	3	8
6	Tennis	2	5
	Others	3	8
		<u>41</u>	<u>100</u>





TABLE LIX (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Tennis	16	31
2	Swimming	9	17
3	Track and Field	6	12
4	Basketball	6	12
5	Squash	4	8
6	Dancing	3	6
	Others	7	14
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Swimming	13	28
2	Dancing	6	13
3	Tennis	6	13
4	Basketball	5	11
5	Field Hockey	4	9
6	Squash	4	9
	Others	8	17
		<u>46</u>	<u>100</u>



TABLE LX

## PHYSICAL ACTIVITY AS AN ASCETIC EXPERIENCE

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Swimming	52	24
2	Track and Field	50	23
3	Gymnastics	21	10
4	Australian Rules Football	18	9
5	Field Hockey	13	6
6	Ballet	10	5
	Others	51	23
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Track and Field	18	23
2	Swimming	15	20
3	Australian Rules Football	8	10
4	Rugby	8	10
5	Field Hockey	6	8
6	Gymnastics	5	7
	Others	17	22
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Swimming	12	31
2	Australian Rules Football	10	24
3	Track and Field	7	17
4	Gymnastics	4	9
5	Rugby	2	5
6	Field Hockey	2	5
	Others	4	9
		<u>41</u>	<u>100</u>



TABLE LX (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Swimming	16	31
2	Track and Field	12	24
3	Gymnastics	6	12
4	Ballet	3	6
5	Field Hockey	3	6
6	Basketball	3	6
	Others	8	15
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Track and Field	13	28
2	Swimming	9	20
3	Ballet	7	13
4	Gymnastics	6	13
5	Basketball	5	13
6	Field Hockey	2	4
	Others	4	9
		<u>46</u>	<u>100</u>





TABLE LXI  
PHYSICAL ACTIVITIES AS GAMES OF CHANCE

Rank	Physical Activity	Number of Responses	Percentage
TOTAL SAMPLE			
1	Horse Racing	67	31
2	Card Games	46	21
3	Car Racing	29	13
4	Dice	22	10
5	Motorcycle Racing	10	5
6	Hunting and Fishing	18	9
	Others	23	11
		<u>215</u>	<u>100</u>
GRADE 9 BOYS			
1	Horse Racing	26	33
2	Card Games	15	20
3	Car Racing	8	10
4	Dice	7	9
5	Hunting and Fishing	6	8
6	Motor Bike Racing	6	8
	Others	9	12
		<u>77</u>	<u>100</u>
GRADE 11 BOYS			
1	Horse Racing	16	39
2	Card Games	10	24
3	Dice	4	9
4	Car Racing	4	9
5	Motor Bike Racing	2	5
6	Billiards	2	5
	Others	3	9
		<u>41</u>	<u>100</u>



TABLE LXI (Continued)

Rank	Physical Activity	Number of Responses	Percentage
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## GRADE 9 GIRLS

1	Horse Racing	15	28
2	Card Games	13	26
3	Car Racing	9	18
4	Dice	7	14
5	Motorcycle Racing	4	8
6	Billiards	2	4
	Others	1	2
		<u>51</u>	<u>100</u>

## GRADE 11 GIRLS

1	Horse Racing	10	22
2	Car Racing	8	17
3	Card Games	8	17
4	Motorcycle Racing	6	13
5	Dice	4	9
6	Hunting and Fishing	6	13
	Others	4	9
		<u>46</u>	<u>100</u>





Physical activity as the pursuit of vertigo (TABLE LVII)

Of the total sample, 21 per cent selected skiing as the sport most likely to give thrills at some risk, 17 per cent selected car racing, 14 per cent chose sky diving, 11 per cent selected surfing, 4 per cent chose gymnastics and 4 per cent selected diving as satisfying the requirements of this classification.

Physical activity as an aesthetic experience (TABLE LVIII)

Of the total sample, 28 per cent selected ballet as providing beauty of human movement, 25 per cent selected gymnastics, 11 per cent selected diving, 7 per cent chose figure skating, 6 per cent chose swimming and 5 per cent selected dancing. Very little difference occurred between the selections of grades 9 and 11 boys and girls.

Physical activity for catharsis (TABLE LIX)

Of the total sample, 16 per cent selected Australian Rules Football as a sport which would help to release tension, 13 per cent selected swimming, 11 per cent chose tennis, 9 per cent selected rugby, 9 per cent selected soccer and 8 per cent chose track and field. The boys in both grades selected Australian Rules Football most often while the girls chose tennis, swimming and dancing.



Physical activity as an ascetic experience (TABLE LX)

Of the total sample, 24 per cent selected swimming as satisfying the requirements of this classification, 23 per cent selected track and field, 10 per cent chose gymnastics, 9 per cent selected Australian Rules Football, 6 per cent selected field hockey and 5 per cent selected ballet as requiring long and strenuous training.

Physical activity as games of chance (TABLE LXI)

Of the total sample, 31 per cent selected horse racing, 21 per cent chose card games, 13 per cent chose car racing, 10 per cent selected dice, 5 per cent selected motorcycle racing and 9 per cent selected hunting and fishing as also satisfying the classification of games of chance.



## CHAPTER V

## SUMMARY AND CONCLUSIONS

The purpose of this study was to determine present attitudes toward, and interests in, physical activity held by selected secondary school students in Perth, Western Australia, and to seek an explanation for these attitudes. An attempt was to be made also to determine the influence of such sociological factors as economic background, educational achievement of the parent, and the country of origin of the parent, on these attitudes.

A sample population of one thousand secondary school students was drawn from schools which would reflect differences in economic background. Use was then made of the inventories developed by Kenyon (25) in which physical activity was characterized by seven sub-domains - social, health, vertigo, aesthetic, catharsis, ascetic and games of chance - as these inventories were administered to the sample population, collected, coded and analyzed by various statistical procedures.

A summary of the results of the study brought out a number of points.

Within the four sub-populations, a difference was found between the attitudes held towards each of the seven





sub-domains. Girls, on the whole, tended to have more favourable attitudes for participation in aesthetic and cathartic activities, while boys expressed a much more favourable attitude towards activities which were thrilling but involved the participant in some risk.

In the ranking of attitudes it became apparent that girls retained more stability in their attitudes between grades 9 and 11 than did the boys. It was suggested that this could be the result of girls acquiring maturity at an earlier age. This would help with the acceptance and adoption of a set of attitudes based on the value and expectations of society while still in grade 9, and these attitudes would not alter greatly while the social and emotional environment remained stable.

The influence of economic background was not noted when the attitudes of grade 9 and grade 11 students towards physical activity were compared. When the grades were further sub-divided into boys and girls from high and low economic backgrounds, statistically significant differences were found in the attitudes that they held. Girls appeared to be more affected by these differences than the boys, with grade 9 girls from a high economic background having a significantly more favourable attitude toward physical activity than girls from the same grade from a low economic background. By indicating a less favourable



attitude toward physical activity in general, grade 11 girls from a high economic background tended to conform with society's expectations of attitude changes with a gradual decrease in participation in the more active and vigorous activities, and a corresponding increase in interest in aesthetic activities. Grade 11 girls from a low economic background did not tend to follow this pattern of attitude change and indicated a favourable attitude toward participation in physical activity which was significantly more favourable than that held by the girls from the high economic background. This result would tend to agree with the statement of Lundberg, et al (32), which was that participation in physical activity will vary in type but not by amount in different social classes. Boys in both grades appeared to be relatively unaffected by differences in economic background, with little variation in attitude towards participation in physical activity as a whole being indicated.

When the influence of economic background on the attitudes of boys and girls towards physical activity as defined in the seven sub-domains was examined, it was found that:

1. Boys from a high economic background had a significantly more favourable attitude toward social activities than did those from a low economic





background.

2. Boys from a low economic background had a significantly more favourable attitude toward those sports which provided thrills, but at some risk to the participant, than did boys from a high economic background.

3. A marked disparity in attitudes towards participation in social activities between boys and girls from a low economic background was observed which did not exist between sexes from a high economic background.

4. Attitudes toward participation in aesthetic and ascetic activities appeared to be specific to a sex and were not significantly influenced by economic background.

The influence of educational achievement of parents on the attitudes towards participation in physical activity expressed by the students was found to be significant at the five per cent level of confidence. Those students whose parents had received a tertiary education had significantly more favourable attitudes toward participation in physical activity than did those whose parents had received only secondary or primary education. No significant differences were observed between the attitudes expressed by students whose parents had received secondary or primary education



only.

The country of origin of the parent did not appear to have any influence on the attitudes of the students towards participation in physical activity.

### General Information

Both boys and girls indicated that they participated frequently in physical activity for social experiences, for health and fitness and for release of tension. Participation in aesthetic and cathartic activities, and in games of chance was less frequent. Boys tended to participate more than girls in activities which provided thrills. A significant correlation existed between the participation of the student and of his or her best friend as expressed by the student.

Teen dance programmes were the most popular of the activities watched on television. Boys indicated more interest than girls in programmes showing thrilling sports, while girls expressed a preference for programmes emphasizing aesthetic activities.

Newspapers appeared to be the most effective medium for the diffusion of information on sporting activities with boys indicating more interest in this information.

More than seventy per cent of the total sample indicated that they belonged to at least one sporting club or organization.

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Approximately seventy per cent of the total sample indicated that both parents had been born in Australia.

The seven sub-domains into which physical activity was classified appeared to be separate and distinct. A suggestion arising from the results is that a more lucid interpretation of the vertigo sub-domain be included in place of the present definition and that the sub-domains of ascetic experience and games of chance be re-evaluated on the basis of their being, or not being, major classifications of physical activity.

### Conclusions

1. From the results of the attitude scores it would appear that the attitudes of the students towards participation in physical activity were generally favourable.
2. Girls indicated more interest in aesthetic activities, and those for the release of tension than did the boys.
3. Boys expressed more interest in activities which provided thrills, but at a risk, to the participant than did the girls.
4. The girls' attitudes toward participation in physical activity appeared to be relatively more stable than that of the boys between grades.





5. Economic background did have an influence on the attitude of the students towards participation in physical activity.
6. The educational achievement of the parents did have an influence on the attitudes of the students towards participation in physical activity.
7. The country of origin of the parents did not influence significantly the attitudes of the students towards participation in physical activity.
8. The semantic differential as a measuring instrument in this inventory appeared to be reasonably successful in differentiating between attitudes and had a moderately high reliability.
9. The inclusion of the sub-domains of games of chance and ascetic experience as major classifications of physical activity is open to doubt.
10. The participation in physical activity by the student is influenced by best friends.
11. If the inventory is to be utilized for testing populations from different cultures some alterations to the test items will be required.

### Recommendations

1. A revision of the major classifications of physical activity should be carried out to decide if Games of Chance and Ascetic Experience should be included



in their present form.

2. A similar study should be carried out with the sample chosen from groups with different countries of origin.
3. A longitudinal study should be initiated to determine attitude changes within the school population.
4. A modification of the present inventory should be developed to facilitate surveys in populations and in different cultures.
5. The validity of the responses obtained should be tested by means of an interview or repetition of the completion of the inventory.
6. A continuing evaluation of the physical activity programme should be carried out in all schools to ensure that it is allied to the needs and desires of the students, and to the recreational opportunities available in the community.
7. More individual sports, such as golf, should be included in the physical education and sport programmes.





## BIBLIOGRAPHY

1. Adams, C. L. "Active Recreational Interests of Columbia College Alumni." Research Quarterly 19:43-47. March, 1948.
2. Adams, R. S. "Two Scales for Measuring Attitude Toward Physical Education," Research Quarterly 34:91-94. 1963.
3. Baker, F. B. Generalized Item and Test Analysis, Laboratory of Experimental Design, University of Wisconsin, Madison, Wisconsin, 1963 (mimeographed).
4. Beal, G. B. "Reasons for Selection of Certain Physical Education Activities by Women Students of Ohio State University," 1957 Master of Arts Thesis, Ohio State University.
5. Bell, M. and Walters, E. "Attitude of Women at the University of Michigan Toward Physical Education," Research Quarterly, 24:379-385. 1953.
6. Biddulph, L. G. "Athletic Adjustment of High School Boys," Research Quarterly, 25:1-7, 1954.
7. Blanchard, B. E. "A Comparative Analysis of Secondary School Boys' and Girls' Character and Personality Traits in Physical Education Classes," Research Quarterly, 17:33-39, 1946
8. Broer M., Fox K., Way E. "Attitude of University of Washington Women Students Toward Physical Education Activity," Research Quarterly, 26:379-384, 1955.
9. Broer, M. and Holland, S. "Physical Education Interests and Needs of Washington Women in Service Classes," Research Quarterly, 23:387, 1954.
10. Callois, R. Man, Play and Games, New York, Free Press of Glencoe, 1961.
11. Clarke, A. C. "The Use of Leisure and its Relation to Levels of Occupational Prestige" in Larrabee, E. and Meyersohn, R. eds. Mass Leisure, Glencoe, Ill.: The Free Press, 1958, 205-214.
12. Cowell, C. C. "Contributions of Physical Activity to Social Development," Research Quarterly, 31:286-306. 1960.



13. Cross, J.A. "Attitudes Towards Physical Education of Male Students Entering the University of Oregon," 1954, Master of Science Thesis, University of Oregon.
14. Crowne, D. P. and D. Marlow. The Approval Motive: Studies in Evaluative Dependence, New York: Wiley, 1964.
15. Cureton, T. K. Physical Fitness and Dynamic Health, New York; Dial Press, 1965.
16. Frank, J. "The Relationship of Some Selected Socio-Economic Factors to Changes in Physical Education Programs in Certain localities in Missouri," 1963, Doctor of Physical Education Dissertation, Springfield College.
17. George, E. W. "A Survey of the Attitudes of Selected Male Students Toward Physical Education and Recreational Activities at the University of Oregon," 1958, Master of Science Thesis, University of Oregon.
18. Graybeal, E. "Measurement of Attitudes in Physical Education for Women," Research Quarterly, 7:60-63, 1936.
19. Gulliksen, H. and Messich S. Psychological Scaling: Theory and Applications, New York, John Wiley and Sons, 1960.
20. H'Doubler, M. Dance, A Creative Art Experience, Madison, Wisconsin Press, 1962.
21. Huizinga, J. Homo Ludens: A Study of the Play Element in Culture, Routledge and Kegan Paul, London, 1949.
22. Hunter, S. R. "Attitudes of Women Students Towards College Physical Education," 1956, Doctor of Education Dissertations, University of Florida.
23. Johnson, W. R. and Hutton, D. C. "Effects of a Combative Sport Upon Personality Dynamics as Measured by a Projective Test," Research Quarterly, 26:49-53, 1955.
24. Kenyon, G. S. "A Conceptual Model Characterizing Physical Activity," Research paper, University of Wisconsin, 1965 (mimeographed)





25. Kenyon, G. S. "Assessing Attitudes Toward Sport and Physical Activity," paper presented at the First International Congress of Psychology of Sport, Rome, Italy. April 24th, 1965. (Mimeographed).
26. Kenyon, G. S. "A Multidimensional Scaling Approach to Validating on a Priori Model for characterizing Values Held for Physical Activity." Paper presented at National Convention, AAHPER, Dallas, Texas, March 20, 1965. (Mimeographed).
27. Kenyon, G. S. "Study of Differential Cultural Values Held for Physical Activity," Proposed research project submitted October 30th, 1964. (Mimeographed).
28. Kenyon, G. S. "The Contribution of Physical Activity to Social Development," Paper presented at Symposium on the Role of Physical Activity in the Integrated Development of Children, Purdue University, June 29-30, 1964,
29. Keogh, J. "Analysis of General Attitudes Toward Physical Education," Research Quarterly, 33:239-244, 1962.
30. Keogh, J. "Extreme Attitudes Toward Physical Education," Research Quarterly, 34:27-33, 1964.
31. Lewis, C. G. "Expressed Values of College Women at the University of Georgia Concerning Selected Social Factors Related to Acceptance of and Participation in Physical Education," 1961, Doctor of Education Dissertation, Columbia University.
32. Lundberg, G. et al. The Amount and Uses of Leisure, in Larrabee and Meyersohn, op cit., 173-198.
33. McAfee, R. A. "Sportsmanship Attitudes of Sixth, Seventh and Eighth Grade Boys," Research Quarterly, 26:120, 1955.
34. McIntosh, P. C. Sport in Society, Watts, London, 1963.
35. McPhee, W. N. Formal Theories of Mass Behavior, New York, Free Press of Glencoe, 1963.
36. Meheu, R. "Sport and Culture," Journal of Health, Physical Education and Recreation: 34:30-32, 49-50, 52-54, 1963:





37. Menninger, W. C. "Recreation and Mental Health," Recreation 42:340-46, 1963
38. Merritt, M. A. "The Relationship of Selected Physical, Mental, Emotional, and Social Factors to the Recreational Preferences of College Women," 1961, Doctor of Philosophy Dissertation, State University of Iowa.
39. Moore, B. "The Attitude of College Women Toward Physical Activity as a Means of Recreation," Research Quarterly, 12: 720-725, 1941.
40. Nemson, E. "Specific Annoyances in Relation to Student Attitude in Physical Education Classes," Research Quarterly, 20: 336-346, 1949.
41. Nietzsche, F. "The Dawn of Day" (1881), in Levy, D. editor "The Complete Works of Frederick Nietzsche." Edinburgh: Foulis, 1909-1913.
42. Opinion Research Corporation. The Public Appraises Movies. A Survey for Motion Picture Association of America, Inc. Princeton, N.J., 1957, Vol. 11, cited by de Grazia, S. Of Time, Work, and Leisure. Garden City, N.Y.: Doubleday and Co., Inc., 1962.
43. Richarson, C. E. "Thurstone Scale of Measuring Attitudes of College Students Toward Physical Fitness and Exercise," Research Quarterly, 31: 638-643, 1960.
44. Rosenberg, M. Society and the Adolescent Self-Image. Princeton, New Jersey: Princeton University Press, 1965.
45. Scott, M. G. "The Contributions of Physical Activity to Psychological Development," Research Quarterly, 31: 308-310, 1960.
46. Semotiuk, D. "Attitudes Toward and Interests in Physical Activity of Edmonton Secondary School Students" Unpublished Master of Arts thesis, University of Alberta, 1967, pp 231
47. Skubic, E. "A Study in Acquaintantship and Social Status in Physical Education Classes," Research Quarterly, 20: 80-87, 1949.



48. Sluiter, F. W. "The Attitudes of Men Students Toward the Required Physical Education Program at South Dakota State College," 1959, Master of Science Thesis, South Dakota State College.
49. Smith, W. R. "A Questionnaire Study in Regards to the Attitude of Men Students Toward the Required Physical Education Program," Research Quarterly, 4: 246-248, 1933.
50. Sutton-Smith, B. "Game Involvement in Adults." Journal of Social Psychology 60: 15-30, 1963.
51. Squires, J. Y. "Factors Influencing Attitudes of High School Senior Boys Toward Physical Education," 1956 Doctor of Physical Education Dissertation, Springfield College.
52. Stone, G. P. "Some Meanings of American Sport". 60th Proceedings College Physical Education Association, 1957.
53. Toogood, R. "A Survey of Recreational Interests and Pursuits of College Women," Research Quarterly, 10: 90-100, 1939.
54. Ward, J. A. A Study of the College Educated Women of America. New York: 1956, cited by de Grazia, S. op cit., pp 450-451
55. Wear, C. L. "Construction of Equivalent Forms of an Attitude Scale," Research Quarterly, 20: 113-119, 1955.
56. Wenkert, S. "The Meaning of Sports for Contemporary Man," Journal of Existential Psychiatry, 3: 397-404, 1963.
57. White, R. C. "Social Class Differences in the Uses of Leisure." In Larrabee and Meyersohn, op cit., pp 198-204.
58. Wylie, J. A. "A Survey of 504 Families to Determine the Relationships between Certain Factors and the Nature of the Family Recreation Program," Research Quarterly, 24: 229-243, 1953.







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B.A.T. (rev.)  
(Digitek)

INSTRUCTIONS

(using Digitek answer sheets)

SEM. D. SCALES OF ATPA AND BI

(Project M)

1. You should have an inventory containing 9 pages.
2. You should have 2 separate answer sheets.
3. Put all answers on the answer sheet. DO NOT WRITE ON THE INVENTORY.
4. Put your name, school, form or grade on the answer sheet.
5. Read the following instructions carefully, keeping in mind that you will be answering on a special answer sheet.

The purpose of this inventory is to measure the meaning for you of certain concepts of physical activity by judging them against a series of descriptive scales. On each page of the booklet, you will find a different idea or concept to be judged and beneath it a set of scales. You are to rate the concept on each of these scales in the order in which they are given. In taking this test, please make your judgments on the basis of what these things mean to you.

Here is how you are to use these scales:

If you feel that the concept in the box at the top of the page, for example, "REFEREE," is very closely related to one end of the scale, you would place your check-mark as follows:

1                      7  
┌──────────────────┐  
REFEREE  
└──────────────────┘

fair   X   :           :           :           :           :           :           :   unfair  
         1        2        3        4        5        6        7

or

fair           :           :           :           :           :           :   X   :   unfair  
         1        2        3        4        5        6        7



If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

fair            :    X:            :            :            :            :    unfair  
               1        2        3        4        5        6        7  
                             or

fair    $\frac{\quad}{1}$  :    $\frac{\quad}{2}$  :    $\frac{\quad}{3}$  :    $\frac{\quad}{4}$  :    $\frac{\quad}{5}$  :    $\frac{X}{6}$  :    $\frac{\quad}{7}$  :   unfair

If the concept seems only slightly related to one side as opposed to the other side (but is not neutral), then you should check as follows:

fair    \_\_\_\_\_ :    \_\_\_\_\_ :    X         :    \_\_\_\_\_ :    \_\_\_\_\_ :    \_\_\_\_\_ :    \_\_\_\_\_ :    unfair  
            1          2          3          4          5          6          7

or

fair \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: X: \_\_\_\_\_: \_\_\_\_\_: unfair  
1 2 3 4 5 6 7

The direction towards which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you are judging. If you consider the concept to be neutral on the scale (that is, both sides of the scale seem equally associated with the concept) then you should place your check-mark in the middle space:

safe         :         :         :         :         :         :         : dangerous

1            2            3            4            5            6            7

## Using the Answer Sheet

To express your feeling using the answer sheet, simply mark the box that corresponds with the same space on the scale you are answering. For example, on question 21, if you wanted to put an X in the second space on the scale you would fill in with pencil the second box in the row of boxes marked 21.

On the inventory . . . .

21. fair       : X:       :       :       :       :       : unfair  
          1      2      3      4      5      6      7

would be on the answer sheet . . . .

22.      1           2           3           5           6           7



## IMPORTANT

1. Always be sure the answer sheet number is the same as the question number on the inventory.
2. When you reach page 8 you must begin THE SECOND ANSWER SHEET.
3. Be sure you check every scale - do not omit any.
4. Mark only one box on each scale.
5. The numbers under each scale are merely to assist in analysis of the data by computers. You do not need to pay any attention to them.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at a fairly high speed through the test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feeling" about the items, that we want. On the other hand, please do not be careless because we want your true impressions.





B.A.T.: Rev.

Name(print) \_\_\_\_\_ School \_\_\_\_\_ Grade or Form \_\_\_\_\_

Express on the scales below what this concept means to you.

### PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE

Sports, games and other forms of physical recreation whose primary purpose is to provide opportunities for social participation; that is, to meet new people and continue personal friendships.

As you proceed, always be thinking about the idea or concept in the box.

1.        good         :      :      :      :      :      :      : bad  
              1        2        3        4        5        6        7
2.    worthless         :      :      :      :      :      :      : worthwhile  
                  1        2        3        4        5        6        7
3.        pleasant         :      :      :      :      :      :      : unpleasant  
                  1        2        3        4        5        6        7
4.        sour         :      :      :      :      :      :      : sweet  
                  1        2        3        4        5        6        7
5.        nice         :      :      :      :      :      :      : awful  
                  1        2        3        4        5        6        7
6.        sad         :      :      :      :      :      :      : happy  
                  1        2        3        4        5        6        7
7.        clean         :      :      :      :      :      :      : dirty  
                  1        2        3        4        5        6        7
8.        relaxed         :      :      :      :      :      :      : tense  
                  1        2        3        4        5        6        7



## PHYSICAL ACTIVITY FOR HEALTH AND FITNESS

Participating in physical activity  
primarily to improve one's health  
and physical fitness.

9. good 1: 2: 3: 4: 5: 6: 7: bad
10. worthless 1: 2: 3: 4: 5: 6: 7: worthwhile
11. pleasant 1: 2: 3: 4: 5: 6: 7: unpleasant
12. sour 1: 2: 3: 4: 5: 6: 7: sweet
13. nice 1: 2: 3: 4: 5: 6: 7: awful
14. sad 1: 2: 3: 4: 5: 6: 7: happy
15. clean 1: 2: 3: 4: 5: 6: 7: dirty
16. relaxed 1: 2: 3: 4: 5: 6: 7: tense





PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK

Physical activities providing, at some risk to the participant, thrills and excitement through speed, acceleration, sudden change of direction, and exposure to dangerous situation

17. good \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: bad  
1 2 3 4 5 6 7
18. worthless \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: worthwhile  
1 2 3 4 5 6 7
19. pleasant \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: unpleasant  
1 2 3 4 5 6 7
20. sour \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: sweet  
1 2 3 4 5 6 7
21. nice \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: awful  
1 2 3 4 5 6 7
22. sad \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: happy  
1 2 3 4 5 6 7
23. clean \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: dirty  
1 2 3 4 5 6 7
24. relaxed \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: tense  
1 2 3 4 5 6 7



PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT  
Physical activities which are thought of as  
possessing beauty or certain artistic qualities  
such as ballet, gymnastics or figure skating.

25. good 1: 2: 3: 4: 5: 6: 7: bad
26. worthless 1: 2: 3: 4: 5: 6: 7: worthwhile
27. pleasant 1: 2: 3: 4: 5: 6: 7: unpleasant
28. sour 1: 2: 3: 4: 5: 6: 7: sweet
29. nice 1: 2: 3: 4: 5: 6: 7: awful
30. sad 1: 2: 3: 4: 5: 6: 7: happy
31. clean 1: 2: 3: 4: 5: 6: 7: dirty
32. relaxed 1: 2: 3: 4: 5: 6: 7: tense



PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION

The participation (or watching others participate) in physical activities to get away from the problems of modern living; to provide a release from "pent up emotions".

33. good 1: 2: 3: 4: 5: 6: 7: bad
34. worthless 1: 2: 3: 4: 5: 6: 7: worthwhile
35. pleasant 1: 2: 3: 4: 5: 6: 7: unpleasant
36. sour 1: 2: 3: 4: 5: 6: 7: sweet
37. nice 1: 2: 3: 4: 5: 6: 7: awful
38. sad 1: 2: 3: 4: 5: 6: 7: happy
39. clean 1: 2: 3: 4: 5: 6: 7: dirty
40. relaxed 1: 2: 3: 4: 5: 6: 7: tense





PHYSICAL ACTIVITY AS PROLONGED AND STRENUOUS TRAINING

Physical activities which require long periods of strenuous and often painful training; which involve stiff competition and demands that the individual give up a number of pleasures for a period of time.

41. good 1: 2: 3: 4: 5: 6: 7: bad
42. worthless 1: 2: 3: 4: 5: 6: 7: worthwhile
43. pleasant 1: 2: 3: 4: 5: 6: 7: unpleasant
44. sour 1: 2: 3: 4: 5: 6: 7: sweet
45. nice 1: 2: 3: 4: 5: 6: 7: awful
46. sad 1: 2: 3: 4: 5: 6: 7: happy
47. clean 1: 2: 3: 4: 5: 6: 7: dirty
48. relaxed 1: 2: 3: 4: 5: 6: 7: tense



PHYSICAL ACTIVITY AS GAMES OF CHANCE

Games and sports where chance and luck are more important than skill in determining the winner, such as dice or horse racing.

49. good 1: 2: 3: 4: 5: 6: 7: bad
50. worthless 1: 2: 3: 4: 5: 6: 7: worthwhile
51. pleasant 1: 2: 3: 4: 5: 6: 7: unpleasant
52. sour 1: 2: 3: 4: 5: 6: 7: sweet
53. nice 1: 2: 3: 4: 5: 6: 7: awful
54. sad 1: 2: 3: 4: 5: 6: 7: happy
55. clean 1: 2: 3: 4: 5: 6: 7: dirty
56. relaxed 1: 2: 3: 4: 5: 6: 7: tense





# MY BODY: AS IT REALLY IS

	1	2	3	4	5	6	7	
25. relaxed	_____:	_____:	_____:	_____:	_____:	_____:	_____:	tense
26. ugly	_____:	_____:	_____:	_____:	_____:	_____:	_____:	beautiful
27. usual	_____:	_____:	_____:	_____:	_____:	_____:	_____:	unusual
28. sick	_____:	_____:	_____:	_____:	_____:	_____:	_____:	healthy
29. graceful	_____:	_____:	_____:	_____:	_____:	_____:	_____:	awkward
30. inadequate	_____:	_____:	_____:	_____:	_____:	_____:	_____:	adequate
31. rugged	_____:	_____:	_____:	_____:	_____:	_____:	_____:	delicate
32. clean	_____:	_____:	_____:	_____:	_____:	_____:	_____:	dirty
33. hard	_____:	_____:	_____:	_____:	_____:	_____:	_____:	soft
34. short	_____:	_____:	_____:	_____:	_____:	_____:	_____:	tall
35. light	_____:	_____:	_____:	_____:	_____:	_____:	_____:	heavy
36. large	_____:	_____:	_____:	_____:	_____:	_____:	_____:	small
37. masculine	_____:	_____:	_____:	_____:	_____:	_____:	_____:	feminine
38. feeble	_____:	_____:	_____:	_____:	_____:	_____:	_____:	vigorous
39. flexible	_____:	_____:	_____:	_____:	_____:	_____:	_____:	rigid
40. weak	_____:	_____:	_____:	_____:	_____:	_____:	_____:	strong
41. free	_____:	_____:	_____:	_____:	_____:	_____:	_____:	restricted
42. persist	_____:	_____:	_____:	_____:	_____:	_____:	_____:	letting up
43. passive	_____:	_____:	_____:	_____:	_____:	_____:	_____:	active
44. hot	_____:	_____:	_____:	_____:	_____:	_____:	_____:	cold
45. excitable	_____:	_____:	_____:	_____:	_____:	_____:	_____:	calm
46. simple	_____:	_____:	_____:	_____:	_____:	_____:	_____:	complex
47. fast	_____:	_____:	_____:	_____:	_____:	_____:	_____:	slow
48. permanent	_____:	_____:	_____:	_____:	_____:	_____:	_____:	changeable
	1	2	3	4	5	6	7	



SENAPS  
(Project M)

Name(print) \_\_\_\_\_ School \_\_\_\_\_ Grade or Form \_\_\_\_\_  
(last name first)

NAP SCALE

INSTRUCTIONS

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally. If for you the statement is true, circle the T. If false, circle the F.

EXAMPLE

T F 1. Horses have two legs.

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- T F 1. Before voting I would thoroughly investigate the qualification of all the candidates.
- T F 2. I never hesitate to go out of my way to help someone in trouble.
- T F 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 4. I have never intensely disliked anyone.
- T F 5. On occasion I have had doubts about my ability to succeed in life.
- T F 6. I sometimes feel resentful when I don't get my way.
- T F 7. I am always careful about my manner of dress.
- T F 8. My table manners at home are as good as when I eat out in a restaurant.
- T F 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
- T F 10. On a few occasions, I have given up doing something because I thought too little of my ability.
- T F 11. I like to gossip at times.





- T F 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.
- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.
- T F 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
- T F 19. I sometimes try to get even, rather than forgive and forget.
- T F 20. When I don't know something I don't at all mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favour.
- T F 26. I have never been upset when people expressed ideas very different from my own.
- T F 27. I would never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.





- T F 30. I am sometimes irritated by people who ask favours of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.

### SES SCALE

The following questions explain themselves. Read each carefully, then place an X opposite the best statement for you. There are no "right" answers. It is your opinion that counts.

1. I am able to do things as well as most other people.

1 ☐ Strongly agree  
2 ☐ Agree  
3 ☐ Disagree  
4 ☐ Strongly disagree

2. I wish I could have more respect for myself.

1 ☐ Strongly agree  
2 ☐ Agree  
3 ☐ Disagree  
4 ☐ Strongly disagree

3. I take a positive attitude toward myself.

1 ☐ Strongly agree  
2 ☐ Agree  
3 ☐ Disagree  
4 ☐ Strongly disagree

4. All in all, I am inclined to feel that I am a failure.

1 ☐ Strongly agree  
2 ☐ Agree  
3 ☐ Disagree  
4 ☐ Strongly disagree

5. I feel that I'm a person of worth, at least on an equal plane with others.

1 ☐ Strongly agree  
2 ☐ Agree  
3 ☐ Disagree  
4 ☐ Strongly disagree



6. I feel I do not have much to be proud of.
- |   |       |                   |
|---|-------|-------------------|
| 1 | _____ | Strongly agree    |
| 2 | _____ | Agree             |
| 3 | _____ | Disagree          |
| 4 | _____ | Strongly disagree |
7. I feel that I have a number of good qualities.
- |   |       |                   |
|---|-------|-------------------|
| 1 | _____ | Strongly agree    |
| 2 | _____ | Agree             |
| 3 | _____ | Disagree          |
| 4 | _____ | Strongly disagree |
8. I certainly feel useless at times.
- |   |       |                   |
|---|-------|-------------------|
| 1 | _____ | Strongly agree    |
| 2 | _____ | Agree             |
| 3 | _____ | Disagree          |
| 4 | _____ | Strongly disagree |
9. On the whole, I am satisfied with myself.
- |   |       |                   |
|---|-------|-------------------|
| 1 | _____ | Strongly agree    |
| 2 | _____ | Agree             |
| 3 | _____ | Disagree          |
| 4 | _____ | Strongly disagree |

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## CLASSIFICATION OF SPORTS AND PHYSICAL ACTIVITY

### INSTRUCTIONS

This is the last one! You will remember for other inventories the different types of physical activity such as SOCIAL EXPERIENCE, HEALTH AND FITNESS, etc. Keep the definitions of each of these in mind as you answer the following questions.

1. What 2 sports or physical activities do you think are best for providing enjoyable SOCIAL EXPERIENCES?
- |   |       |    |
|---|-------|----|
| 1 | _____ | 68 |
| 2 | _____ | 62 |
2. What two physical activities do you think are the best for developing HEALTH and FITNESS?
- |   |       |    |
|---|-------|----|
| 1 | _____ | 62 |
| 2 | _____ | 68 |
3. What two physical activities are best for providing THRILLS AT SOME RISK?
- |   |       |    |
|---|-------|----|
| 1 | _____ | 32 |
| 2 | _____ | 62 |





4. What two physical activities do you think are best for showing THE BEAUTY OF HUMAN MOVEMENT?

1	_____	41
2	_____	10

5. What two physical activities do you think are best for RELEASING TENSION?

1	_____	62
2	_____	06

6. What two physical activities do you think require the most PROLONGED AND STRENUOUS TRAINING?

1	_____	68
2	_____	06

7. What two sports or physical activities do you think are based mostly on CHANCE or LUCK?

1	_____	72
2	_____	72



G.I.N.

Name (print) \_\_\_\_\_ School \_\_\_\_\_ Grade or Form \_\_\_\_\_

GENERAL INFORMATION INVENTORY

(Project M)

INSTRUCTIONS

The purpose of this inventory is to find out about your various interests and activities. If you look at the questions now you will see that the (☐) or spaces ( ) are given for your answers. For each question write in the answer or mark the box that would be best for you.

EXAMPLE

at least  
once per  
week

once or less often  
twice per or never  
month

On the average, how often  
do you eat carrots?                      \_\_\_\_\_

The example shows how you would answer if, on the average, you eat carrots at least once each week.

Answer each question after reading it carefully. Choose the answer that is nearest to describing your interests or activities.

---

1. How interested are you in each of the following? For each question, mark an X in the best box for you.

		AMOUNT OF INTEREST			
(a)	<u>Theoretical Matters.</u> The discovery of truth, the use of logic and careful judgements as in science and philosophy.	very much	some	little or none	
		—	—	—	1
(b)	<u>That which is practical and useful.</u> The manufacturing and selling of goods and products to make money. The work of the business man.	very much	some	little or none	
		—	—	—	2



(c) That which is <u>beautiful</u> . The importance of form and harmony as in various forms of art. The creative, individualistic person.	very much —	some —	little or none —	3
(d) That which involves <u>other people</u> . The unselfish liking and helping of other persons to develop warm friendships.	very much —	some —	little or none —	4
(e) <u>Politics</u> . The interest in personal success. power influence and esteem	very much —	some —	little or none —	5
(f) <u>Religious Matters</u> . The mysteries of life. The meaning of life in this and other worlds.	very much —	some —	little or none —	6

2. Interest in Physical Activity. We have classified physical activity into seven types. They will be familiar to you from a previous inventory. They are as follows:

- (a) PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE. Sports, games, and other forms of physical recreation whose primary purpose is to provide opportunities for social participation; that is, to meet new people and continue personal friendships.
- (b) PHYSICAL ACTIVITY FOR HEALTH AND FITNESS. Participating in physical activity primarily to improve one's health and physical fitness.
- (c) PHYSICAL ACTIVITY AS A THRILL, BUT INVOLVING SOME RISK. Physical activities providing, at some risk to the participant, thrills and excitement through speed, acceleration, sudden change of direction, and exposure to dangerous situation.
- (d) PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT. Physical activities which are thought of as possessing beauty or certain artistic qualities such as ballet, gymnastics, or figure skating.





- (e) PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION. The participation (or watching others participate) in physical activities to get away from the problems of modern living; to provide a release from "pent up emotions."
- (f) PHYSICAL ACTIVITY AS PROLONGED AND STRENUOUS TRAINING. Physical activities which require long periods of strenuous and often painful training; which involve stiff competition and demands that the individual give up a number of pleasures for a period of time.
- (g) PHYSICAL ACTIVITY AS GAMES OF CHANCE. Games and sports where chance and luck are more important than skill is determining the winner, such as throwing dice, or betting on horses or dogs.

2A. How often do you actually take part in physical activities that are best described by one or more of the following categories? (when in season). Mark one box in each row.

	at least once per week	once or twice per month	less often or never	
a) PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE	___	___	___	7
b) PHYSICAL ACTIVITY FOR HEALTH AND FITNESS	___	___	___	8
c) PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK	___	___	___	9
d) PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT	___	___	___	10
e) PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION	___	___	___	11
f) PHYSICAL ACTIVITY AS PRO- LONGED AND STRENUOUS TRAINING	___	___	___	12
g) PHYSICAL ACTIVITY AS GAMES OF CHANCE	___	___	___	13



2B. Now, thinking of your best friends, on the average, how often do they actually take part (when in season)? Mark one box in each row.

	at least once per week	once or twice per month	less often or never	
a) PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE	_____	_____	_____	14
b) PHYSICAL ACTIVITY FOR HEALTH AND FITNESS	_____	_____	_____	15
c) PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK	_____	_____	_____	16
d) PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT	_____	_____	_____	17
e) PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION	_____	_____	_____	18
f) PHYSICAL ACTIVITY AS PRO- LONGED AND STRENUOUS TRAINING	_____	_____	_____	19
g) PHYSICAL ACTIVITY AS GAMES OF CHANCE	_____	_____	_____	20

3. How often do you watch each of the following types of physical activity on television?

	at least once per week	once or twice per month	less often or never	
a) teen dance programmes	_____	_____	_____	21
b) exercise and physical fitness programmes	_____	_____	_____	22
c) special sports events showing dangerous and thrilling sports	_____	_____	_____	23





	at least once per week	once or twice per month	less often or never	
d) programmes showing the beauty of human movement (gymnastics, fancy driving etc.)	_____	_____	_____	24
e) college or professional sports	_____	_____	_____	25
4. How often do you <u>read</u> about sports and physical activity in the <u>newspaper</u> ?	_____	_____	_____	26
5. How often do you <u>read</u> about sports and physical activity in <u>magazines</u> or <u>books</u> ?	_____	_____	_____	27
6. To how many clubs or organi- zations (outside of school) two or more sponsoring sports or physical activity <u>do you belong</u> ?	_____	one	_____	28
7. Is there a television set in your home?	yes _____	no _____		29
8. On the average, how many hours do you watch television each week? (for example, if you watch 2 hours each day, then you watch 2 x 7 or 14 hours each week).				
a) In summer	<u>(number of hours)</u>			30-31
b) In winter	<u>(number of hours)</u>			
9. On the average, how many hours do you watch <u>sports</u> on television each week?				
a) In summer	<u>(number of hours)</u>			34-35
b) In winter	<u>(number of hours)</u>			36-37.
10. In what sport or physical activity do you <u>like to participate the most?</u> (Consider <u>all types of sports</u> from swimming to field hockey to dancing). Write in the sport you like to play the most.				38-40



11. In what sport or physical activity does your father (or guardian) like to participate the most? \_\_\_\_\_ 41-43
12. If you had the chance, name the sport in which you would like to participate most of all (even though you may never have played it before). \_\_\_\_\_ 44-46
13. What is your favorite sport to attend as a spectator? \_\_\_\_\_ 47-49
14. What is your father's (or guardian) favourite sport to attend as a spectator? \_\_\_\_\_ 50-52
15. What is your favourite sport on television? \_\_\_\_\_ 53-55
16. What is your father's favorite sport on television? \_\_\_\_\_ 56-58
17. How old are you?      Years \_\_\_\_\_  
   Months \_\_\_\_\_ 59-61
18. How many brothers and sisters do you have?      number of brothers \_\_\_\_\_  
   number of sisters \_\_\_\_\_ 62
19. How many of your brothers and sisters are older than you are? \_\_\_\_\_ 63
20. In what country were your parents born?      father \_\_\_\_\_  
   (write in country)  
   mother \_\_\_\_\_  
   (write in country) 64
21. The Head of your Household is that person who works regularly to provide enough money to support the family. It is usually the father, but sometimes, it is the mother or guardian. If both mother and father are working, consider the father as head of your household.
- a) How much education has the head of your household had? Mark the best one only.

\_\_\_\_\_ 1. University or Training College



\_\_\_ 2. Grammar School or Private School

\_\_\_ 3. Technical School

\_\_\_ 4. State Secondary School

\_\_\_ 5. Primary or Elementary School

\_\_\_ 6. Other \_\_\_\_\_

(write in)

b) What does the head of your household do? What is his  
or her job?

\_\_\_\_\_

c) Briefly describe the kind of work they do at his job?

\_\_\_\_\_

\_\_\_\_\_

22. Are you a boy or girl? Boy \_\_\_\_\_ Girl \_\_\_\_\_







**B29870**